CITY OF DUBLIN

DUBLIN ARTS CENTER PARKING IMPROVEMENTS

7125 RIVERSIDE DRIVE, DUBLIN, OHIO

DUBLIN, OHIO

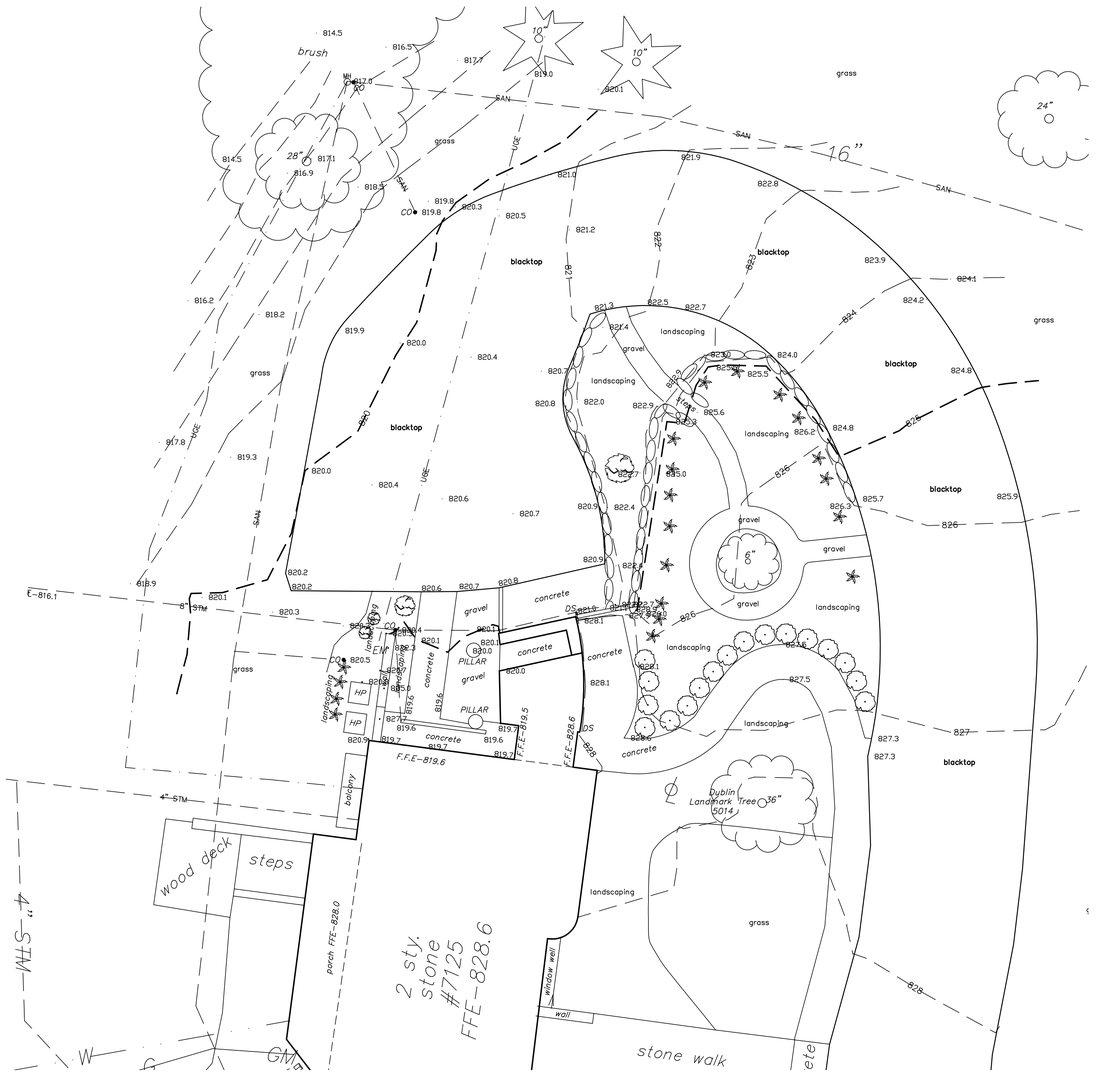
DATE, 4.30.14

PREPARED BY:

JAMES BURKART ASSOCIATES, INC.
LANDSCAPE ARCHITECTS
5737 LAKE FOREST WAY, OHIO 43082
(614) 895-5699 FAX (740) 657-2069
jburkart@jburkart.com
www.jburkart.com
Contact: Jim Burkart

INDEX

Scale 1" = 40'
March, 2014



DUBLIN ARTS CENTER

PATRIDGE
SURVEYING L.L.C.
9464 DUBLIN ROAD
POWELL, OHIO 43065
FAX (614)-799-0030
TEL. (614)-799-0031

SITE SURVEY

SCALE: AS NOTED

OHIO Utilities Protection SERVICE
Call Before You Dig

DRAWN BY: J. BURKART
CHECKED BY: J. BURKART
DATE: 4.30.14

REVISIONS:

DRAWING PHASE:
- [ ] SCHEMATIC
- [ ] DESIGN DEVELOPMENT
- [X] CONSTRUCTION DOCUMENT
- [X] PERMIT SET
- [ ] BID SET

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PROJECT:
Dublin Arts Center Parking Improvements
7125 RIVERSIDE DRIVE
DUBLIN, OHIO

BURKART
DISTINCTIVE LANDSCAPE ARCHITECTURE
JAMES BURKART ASSOCIATES, INC., 5317 LAKE FOREST WAY,
WESTERVILLE, OH 43082, 614-895-5959
e-mail jburkart@burkart.com

STATE OF OHIO
JAMES I. BURKART 334
REGISTERED LANDSCAPE ARCHITECT

JBA #: 1403
SHEET: SS-1

DEMOLITION PLAN

GENERAL NOTES

S•Details©©

1. DO NOT DISTURB PLANTS, PAVEMENTS, CURB, STRUCTURES OR UTILITIES TO REMAIN. CONTRACTOR SHALL REPLACE IN-KIND ALL SUCH ITEMS DAMAGED DURING CONSTRUCTION.

2. UTILITY DATA ON DRAWINGS IS SCHEMATIC AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL CALL UTILITY PROTECTION SERVICE AND/OR THE CITY OF DUBLIN A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION.

3. ALL UTILITY SERVICES SHALL BE MAINTAINED AT ALL TIMES PER SPECIFICATIONS.

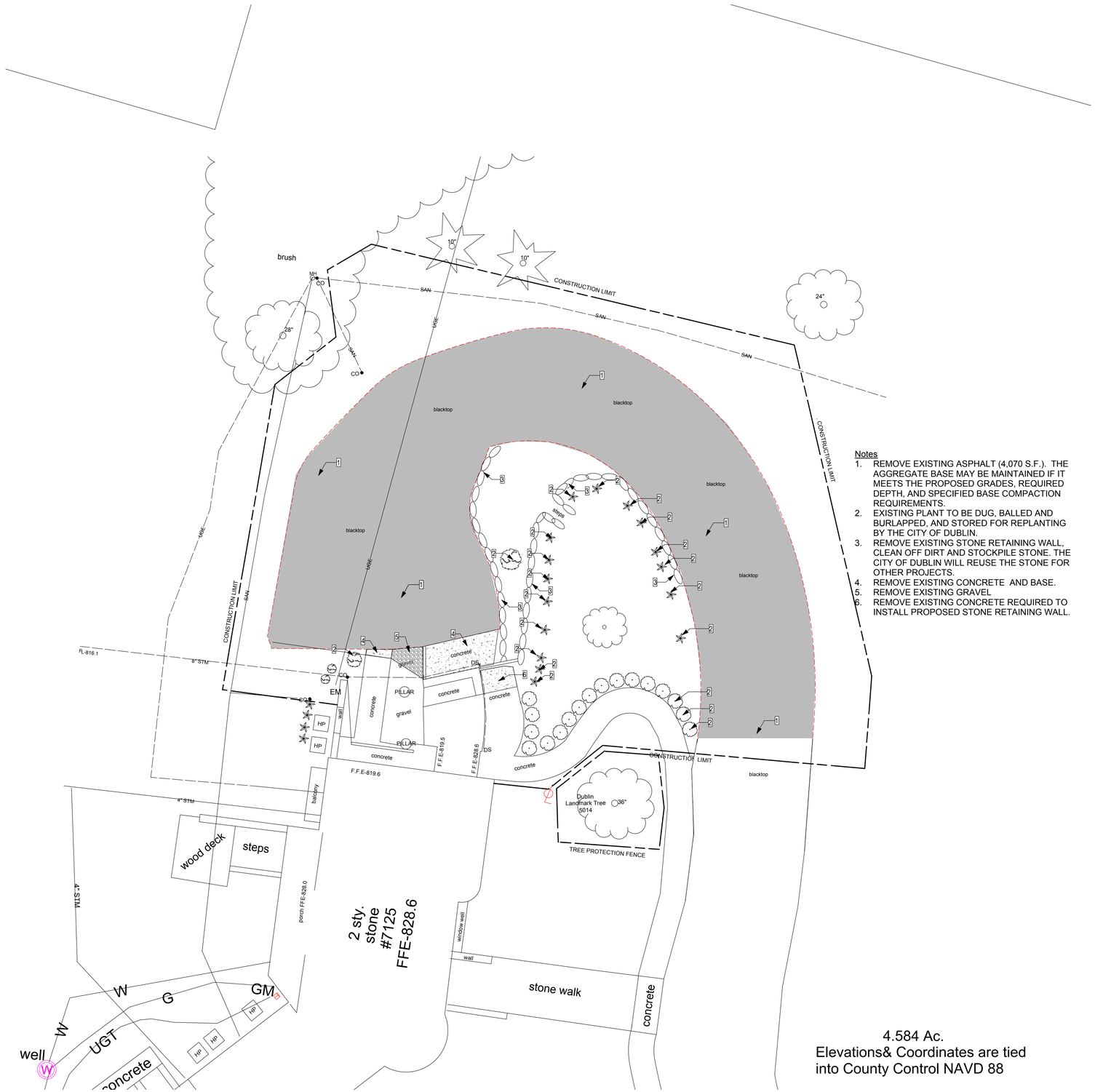
4. DAMAGED UTILITIES SHALL BE REPAIRED WITH NO ADDITIONAL COST TO THE CITY OF DUBLIN AND TO THE THE CITY OF DUBLIN SATISFACTION.

5. PERFORM ALL DEMOLITION AS INDICATED AND AS REQUIRED FOR THE COMPLETION OF THE PROJECT AS DETAILED.

6. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO STREETS, SIDEWALKS AND ACCESS TO THE FACILITIES. PROVIDE, ERECT AND MAINTAIN BARRICADES AS NECESSARY TO PROTECT THE PUBLIC SAFETY.

7. THE CONTRACTOR SHALL NOT REMOVE ANY TREES DURING CONSTRUCTION WITHOUT THE EXPRESS WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT. EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED AS DIRECTED BY THE LANDSCAPE ARCHITECT.

8. SAW CUT ALL EXISTING ASPHALT PAVEMENT TO BE REMOVED. SAW CUT ALL EXISTING CONCRETE PAVEMENT TO BE REMOVED AT NEAREST SCORING JOINT. PAVEMENT REMOVAL INCLUDES AGGREGATE BASE.



Notes

1. REMOVE EXISTING ASPHALT (4,070 S.F.). THE AGGREGATE BASE MAY BE MAINTAINED IF IT MEETS THE PROPOSED GRADES, REQUIRED DEPTH, AND SPECIFIED BASE COMPACTION REQUIREMENTS.
2. EXISTING PLANT TO BE DUG, BALLED AND BURLAPPED, AND STORED FOR REPLANTING BY THE CITY OF DUBLIN.
3. REMOVE EXISTING STONE RETAINING WALL, CLEAN OFF DIRT AND STOCKPILE STONE. THE CITY OF DUBLIN WILL REUSE THE STONE FOR OTHER PROJECTS.
4. REMOVE EXISTING CONCRETE AND BASE.
5. REMOVE EXISTING GRAVEL
6. REMOVE EXISTING CONCRETE REQUIRED TO INSTALL PROPOSED STONE RETAINING WALL.

4.584 Ac.
Elevations& Coordinates are tied into County Control NAVD 88

DEMOLITION PLAN
SCALE: 1"=10'

OHIO Utilities Protection SERVICE
Call Before You Dig

DRAWN BY: J. BURKART
CHECKED BY: J. BURKART
DATE: 4.30.14

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7125 RIVERSIDE DRIVE
DUBLIN, OHIO

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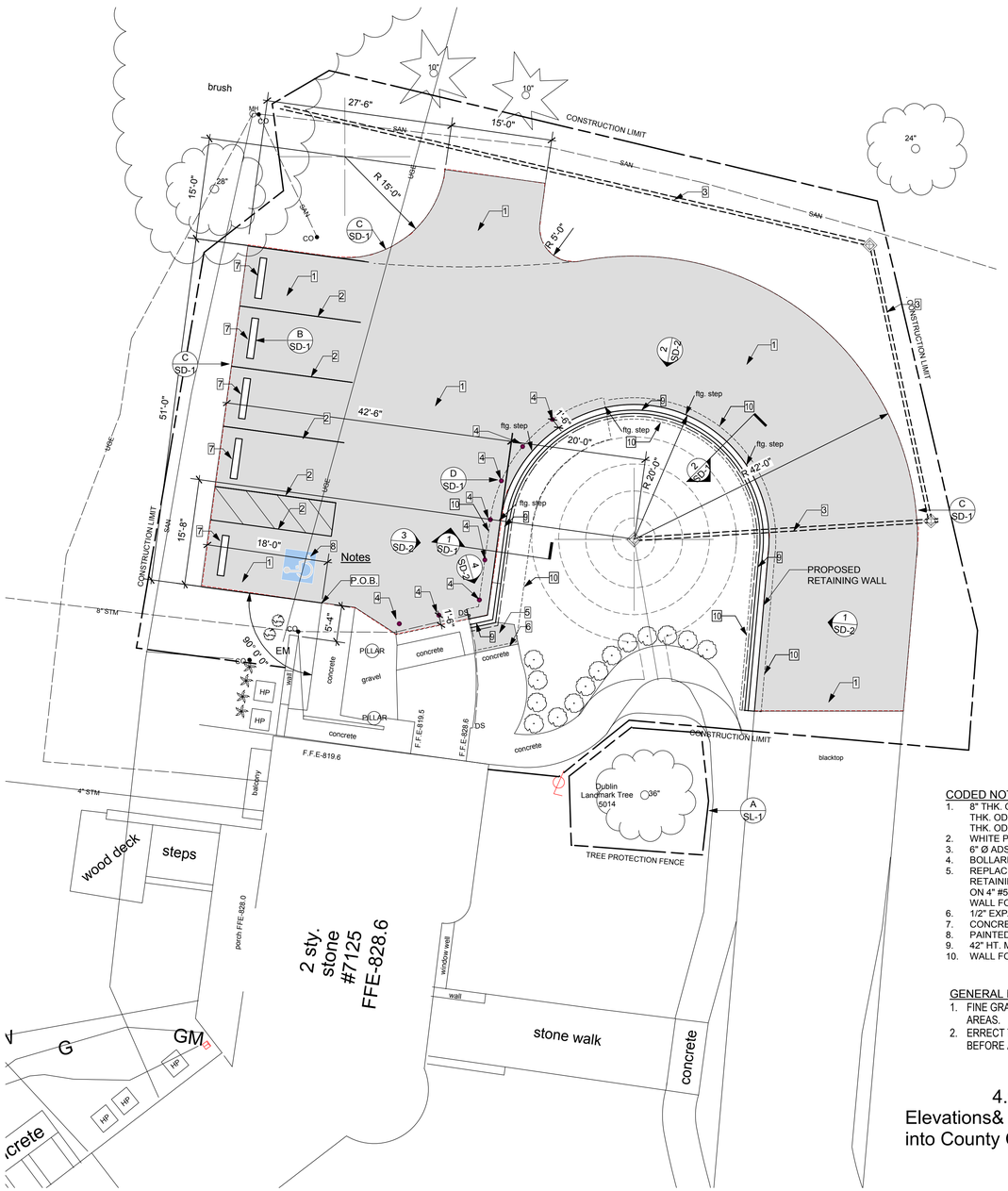
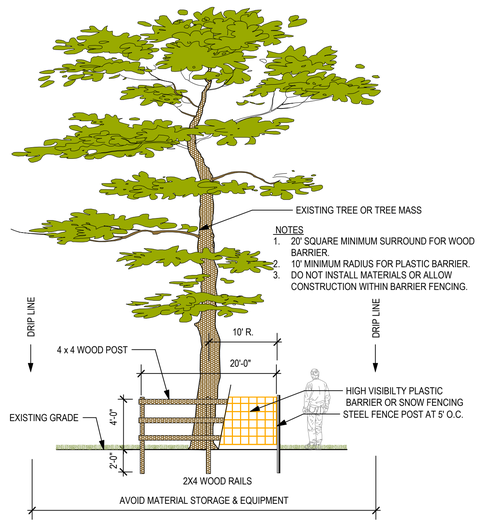
e-mail jburkart@burkart.com

STATE OF OHIO
JAMES I. BURKART 334
REGISTERED LANDSCAPE ARCHITECT

JBA #: 1403
SHEET: SDO-1





A SL-1 DETAIL: TREE PROTECTION FENCE
SCALE: NONE
S-Details®©

CODED NOTES
1. 8" THK. ODOT #304 AGGREGATE BASE WITH 2.5" THK. ODOT #302 ASPHALTIC BASE COURSE AND 1.5" THK. ODOT 404 SURFACE COURSE.
2. WHITE PAINTED STRIPE.
3. 6" Ø ADS N12 STORM. SEE GRADING PLAN.
4. BOLLARD.
5. REPLACE CONCRETE REMOVED TO INSTALL RETAINING WALL WITH 4" THK. 4000 PSI CONCRETE ON 4" #57 BASE. PROVIDE ENGINEERED FILL FROM WALL FOOTING TO 8" BELOW CONCRETE SURFACE.
6. 1/2" EXPANSION JOINT.
7. CONCRETE PARKING BLOCK.
8. PAINTED HANDICAP SYMBOL.
9. 42" HT. METAL RAILING.
10. WALL FOOTING OUTLINE.

GENERAL NOTES
1. FINE GRADE AND SEED ALL DISTURBED AREAS.
2. ERRECT TREE PROTECTION FENCE BEFORE ANY CONSTRUCTION BEGINS.

4.584 Ac.
Elevations& Coordinates are tied into County Control NAVD 88

LAYOUT PLAN

GENERAL NOTES S-Details®© version 2010

PROPERTY SURVEY INFORMATION REPRODUCED FROM DRAWINGS

TITLED: DUBLIN ARTS CENTER

BY: PATRIDGE SURVEYING LLC

DATED: MARCH 2014

1. ALL DIMENSIONS ARE TAKEN TO FACE OF WALL OR BUILDING WHERE APPLICABLE UNLESS OTHERWISE NOTED.

2. CONTRACTOR SHALL LAYOUT AND ADJUST FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.

3. CONTRACTOR SHALL VERIFY DIMENSIONS AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.

4. USE DIMENSIONAL INFORMATION GIVEN. DO NOT SCALE DRAWINGS.

5. CONTRACTOR SHALL REFER QUESTIONS ON MATERIALS, FINISHED, LABOR AND/OR PERFORMANCE STANDARDS NOT SPECIFIED HEREIN TO THE LANDSCAPE ARCHITECT.

6. CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND PROTECT ALL EXISTING SITE IMPROVEMENTS AND UTILITIES DURING CONSTRUCTION OPERATIONS. NOTIFY OHIO UTILITIES PROTECTION SERVICE AND/ OR OWNER TO LOCATE EXISTING UTILITIES AT LEAST 72 HOURS PRIOR TO CONSTRUCTION START.

7. OBTAIN AND PAY FOR ALL APPLICABLE PERMITS, INSPECTIONS, FEES, AND CHARGES.

8. ALL WALKWAYS LEADING TO ENTRANCES ARE TO BE CENTERED ON DOORWAYS UNLESS OTHERWISE NOTED.

9. AT LOCATIONS WHERE EXISTING PAVEMENT ABUTS NEW PAVEMENT, CONTRACTOR SHALL BLEND NEW PAVEMENT TO EXISTING CONDITIONS. PAVEMENTS SHALL ALIGN BOTH VERTICALLY AND HORIZONTALLY. PONDING AT JOINTS WILL NOT BE ACCEPTED.

10. PROVIDE MINIMUM 1/8" & 3/8" MAXIMUM PER FOOT CROSS SLOPE IN DIRECTION OF SURFACE DRAINAGE ON ALL WALKWAYS.

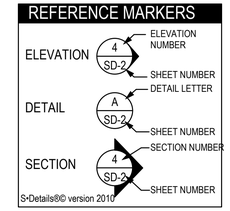
11. WHERE NEW CONCRETE PAVEMENT MEETS EXISTING CONCRETE OR VERTICAL SURFACES PROVIDE 1/2" EXPANSION JOINT. WHERE NEW CONCRETE PAVEMENT MEETS EXISTING ASPHALT, SAW CUT EDGE OF ASPHALT AND BUTT NEW PAVEMENT TIGHT. SCORING JOINTS SHALL MATCH EXISTING CONDITION WHERE NEW CONCRETE PAVEMENT REPLACES EXISTING OR ABUTS EXISTING CONCRETE PAVEMENT.

12. FINISH ON CONCRETE SHALL BE PERPENDICULAR TO TRAFFIC FLOW.

13. WHERE NEW ASPHALT PAVEMENT MEETS EXISTING ASPHALT, SAW CUT EXISTING ASPHALT. ALL NEW PAVEMENTS SHALL MEET EXISTING FLUSH.

14. PARKING LOT LINES AND TRAFFIC CONTROL MARKINGS SHALL BE PAINTED WHITE ON PAVEMENT WITH MINIMUM 4" WIDE LINES OR AS SHOWN ON PLANS.

REFERENCE MARKERS



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OHIO Utilities Protection SERVICE Call Before You Dig

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CHECKED BY: J. BURKART
DATE: 4.30.14

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7125 RIVERSIDE DRIVE
DUBLIN, OHIO

BURKART
DISTINCTIVE LANDSCAPE ARCHITECTURE
JAMES BURKART ASSOCIATES, INC., 5537 LAKE FOREST WAY,
WESTERVILLE, OH 43082, 614-895-5699
e-mail jburkart@burkart.com

LAYOUT PLAN
SCALE: 1"=10'-0"

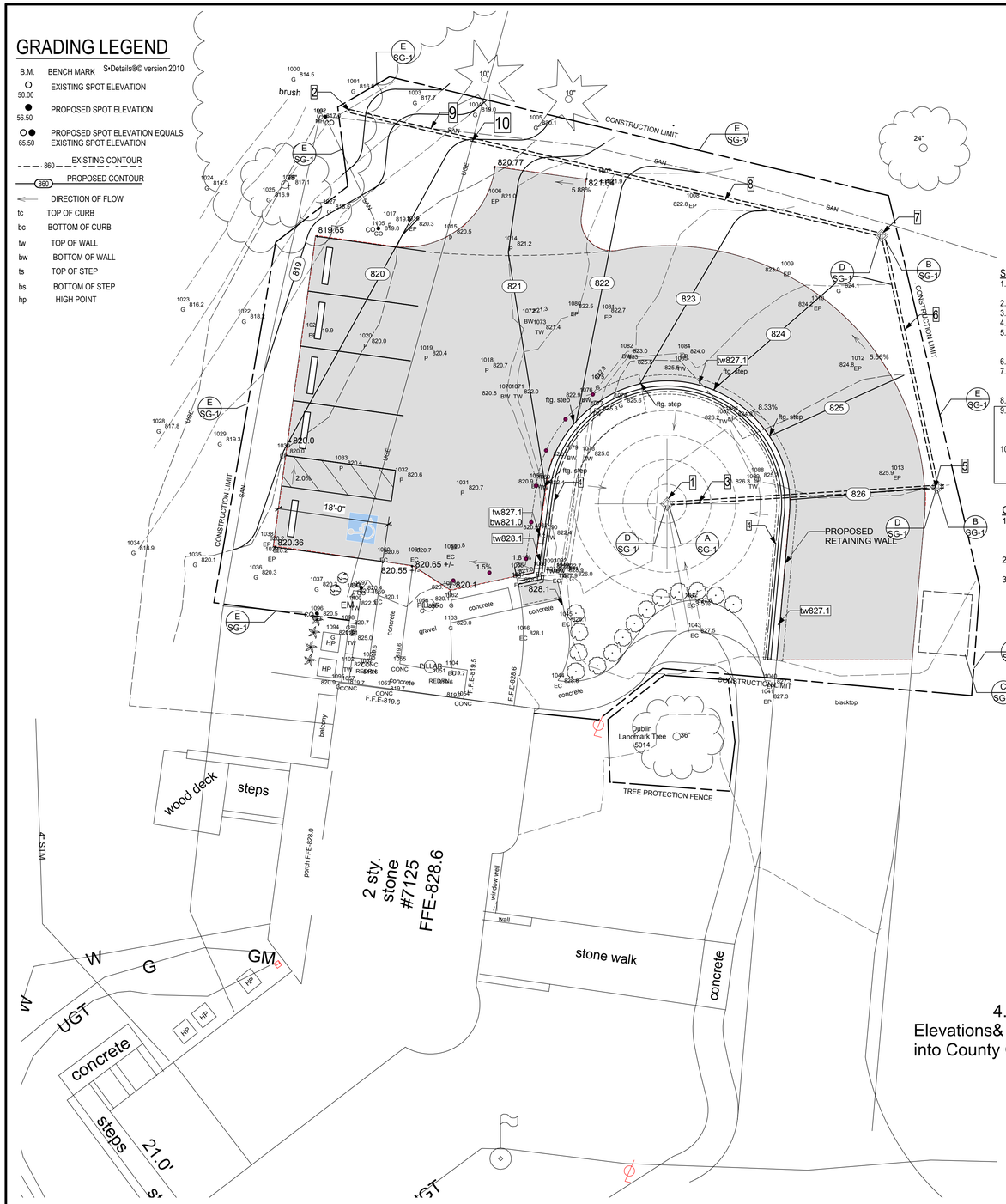
STATE OF OHIO
JAMES I. BURKART
334
REGISTERED LANDSCAPE ARCHITECT

JBA #: 1403
SHEET: SL-1

GRADING LEGEND

S•Details®© version 2010

- B.M. BENCH MARK
- 50.00 ○ EXISTING SPOT ELEVATION
- 56.50 ● PROPOSED SPOT ELEVATION
- 65.50 ○● PROPOSED SPOT ELEVATION EQUALS EXISTING SPOT ELEVATION
- 860 EXISTING CONTOUR
- 860 PROPOSED CONTOUR
- DIRECTION OF FLOW
- tc TOP OF CURB
- bc BOTTOM OF CURB
- tw TOP OF WALL
- bw BOTTOM OF WALL
- ts TOP OF STEP
- bs BOTTOM OF STEP
- hp HIGH POINT



STORM SEWER CODED NOTES

1. INLET RIM @ 826.75
   INVERT OUT @ 819.52
2. OUTFALL @ 817.0
3. 45°- 6"Ø N12 @ 1.0%
4. 4" Ø DRAIN TILE @ 1.0 %
5. SOLID RIM @826.0
   INVERT IN @ 822.55
   INVERT OUT @ 822.45
6. 40'- 6" Ø N12 @ 4.19%.
7. SOLID RIM @823.75
   INVERT IN @ 820.77
   INVERT OUT @ 820.67
8. 90°-6" Ø N12 @ 4.19%
9. CAUTION! POTENTIAL CONFLICT WITH SANITARY SEWER. BOTTOM OF PROPOSED STORM PIPE AT APPROXIMATELY 817.71 AND EXISTING GRADE AT 818.5.
10. CAUTION! POTENTIAL CONFLICT WITH UNDERGROUND ELECTRIC. BOTTOM OF PROPOSED STORM PIPE AT 817.88 AND EXISTING GRADE AT 819.35. 1.47' OF CUT REQUIRED.

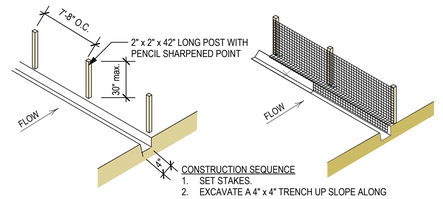
GENERAL NOTES

1. CONTRACTOR TO INVESTIGATE BY HAND POTENTIAL UTILITY CONFLICTS (CODED NOTE 9 & 10) PRIOR TO COMMENCING WITH THE WORK.
2. FINE GRADE AND SEED ALL DISTURBED AREAS.
3. BACKFILL BEHIND WALL WITH COMPACTED FILL. PROVIDE 12" DEEP TOPSOIL.

4.584 Ac.
Elevations& Coordinates are tied into County Control NAVD 88

NOTES

1. THIS SEDIMENT BARRIER UTILIZES STANDARD OR EXTRA STRENGTH SYNTHETIC FILITER FABRICS. IT IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED.
2. THE FILTER FABRIC IS TO BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY THE FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6" OVERLAP AND SECURELY SEALED
3. POSTS SHALL BE SPACED A MAXIMUM OF 7'-8" O.C. AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12". WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT WIRE SUPPORT, FENCE POST SPACING SHALL NOT EXCEED 6'-0".
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4" WIDE AND 4" DEEP ALONG THE LINE OF THE POSTS AND UPSLOPE OF THE BARRIER
5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1" LONG, TIE WIRES OR HOG RINGS. THE WIRE MESH SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2" & SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE.
6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE AND 8" OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
7. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS.
8. THE TRENCH SHALL BE BACKFILLED AND SOIL COMPACTED OVER THE FILTER FABRIC.



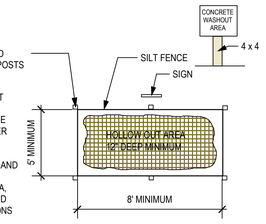
CONSTRUCTION SEQUENCE

1. SET STAKES.
2. EXCAVATE A 4" x 4" TRENCH UP SLOPE ALONG THE LINE STAKES.
3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND THE FABRIC INTO THE TRENCH.
4. BACKFILL TRENCH AND COMPACT THE EXCAVATED SOIL

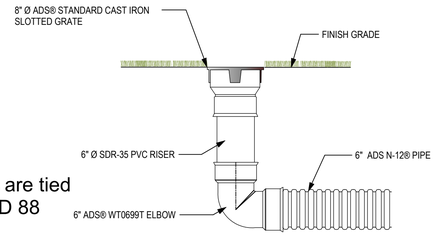
E SG-1 **DETAIL: SILT FENCE**
SCALE: NONE S•Details®©

WASHOUT NOTES

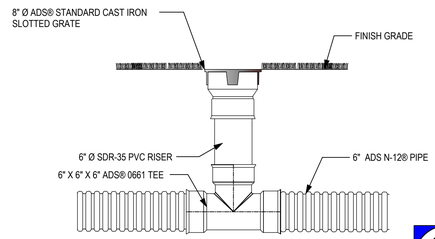
1. CONCRETE TRUCKS SHALL BE WASHOUT AT DESIGNATED AREA.
2. THE LEAD CONTRACTOR SHALL INSPECT THE WASHOUT PIT TO INSURE THAT WASH WATER DOES NOT OVERFLOW THE PIT BERM.
3. ACCUMULATED CONCRETE SHALL BE APPROPRIATELY REMOVED FROM THE SITE AND LEGALLY DISPOSED OF.
4. UPON TERMINATION OF THE WASHOUT AREA, THE LEAD CONTRACTOR SHALL REMOVE AND RESTORE THE AREA TO ORIGINAL CONDITIONS OR PER THE PROPOSED PLAN AND SEED.



C SG-1 **DETAIL: CONCRETE WASHOUT AREA**
SCALE: NONE S•Details®©



A SG-1 **DETAIL: DRAIN INLET**
SCALE: NONE S•Details®©



B SG-1 **DETAIL: DRAIN INLET**
SCALE: NONE S•Details®©

GRADING PLAN

SCALE: 1"=10'

GRADING PLAN

GENERAL NOTES S•Details®©

TOPOGRAPHIC INFORMATION COMPILED BY PLANS

TITLED: DUBLIN ARTS CENTER

BY: PATRIDGE SURVEYING LLC

DATED: MARCH 2014

BENCHMARK LOCATED:

1. CONTRACTOR SHALL VERIFY GRADES AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
2. LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, PRIOR TO CONSTRUCTION, TO DETERMINE IN THE FIELD THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL UTILITY PROTECTION SERVICE AND/THE CITY OF DUBLIN 72 HOURS PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL USE THE SITE LAYOUT PLAN FOR ADDITIONAL SITE DIMENSIONS AND INFORMATION.
4. WHERE PROPOSED GRADES MEET EXISTING, CONTRACTOR SHALL BLEND GRADES TO PROVIDE SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK.
5. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN LAWN AREAS.
6. ALL GRADES SHOWN ARE FINISHED GRADES.
7. THE CONTRACTOR SHALL NOT REMOVE ANY TREES DURING CONSTRUCTION WITHOUT THE EXPRESS WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT. EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED AS DIRECTED BY THE LANDSCAPE ARCHITECT.
8. STRIP ALL TOPSOIL WITHIN THE GRADING LIMIT. STOCKPILE TOPSOIL SEPARATELY FROM THE SUB-SOIL.
9. CLEAR AND GRUB ENTIRE AREA WITHIN LIMITS OF GRADING AS PER SPECIFICATION. TREE ROOTS ARE TO BE GRUBBED OUT, REMOVED AND VOIDS BACKFILLED AND COMPACTED AS PER SPECIFICATIONS.
10. STORM WATER RUNOFF SHALL BE CONTROLLED TO PREVENT EROSION, SILTATION, AND FLOODING OF ON SITE EXCAVATIONS.
11. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE SEEDED AS SPECIFIED.
14. THE EARTHWORK CONTRACTOR TO BE RESPONSIBLE FOR RAISING AND/OR LOWERING TO PROPOSED GRADE ALL EXISTING CATCH BASINS, MANHOLES, FIRE HYDRANTS, UTILITY POLES, SIGNS, WATER VALVE BOXES, ELECTRICAL BOXES, TELEPHONE BOXES, AND ALL OTHER UTILITIES AS SHOWN ON THE PLANS.

STATE OF OHIO
JAMES I BURKART 334
REGISTERED LANDSCAPE ARCHITECT

OHIO Utilities Protection SERVICE Call Before You Dig

DRAWN BY: J. BURKART
CHECKED BY: J. BURKART
DATE: 4.30.14

REVISIONS:

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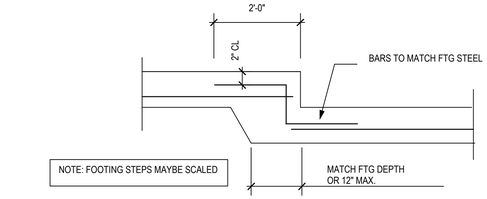
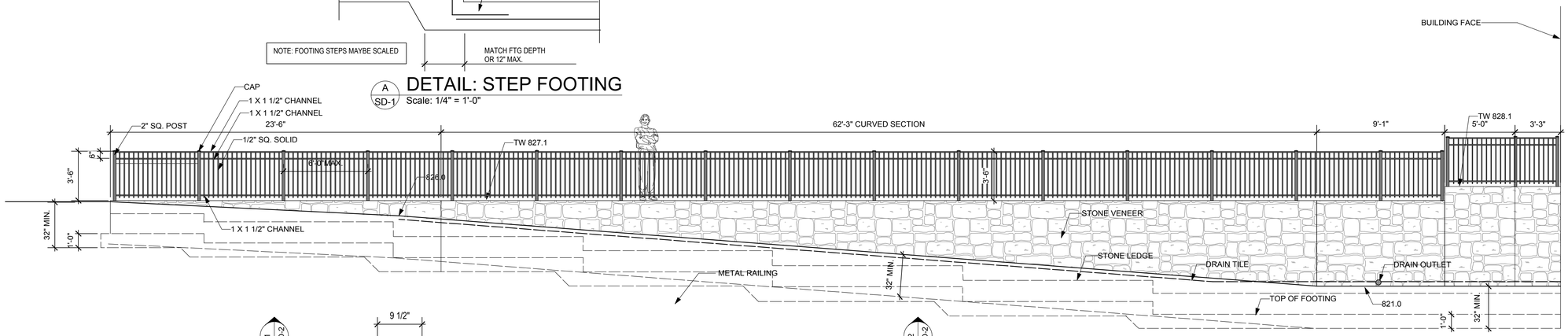
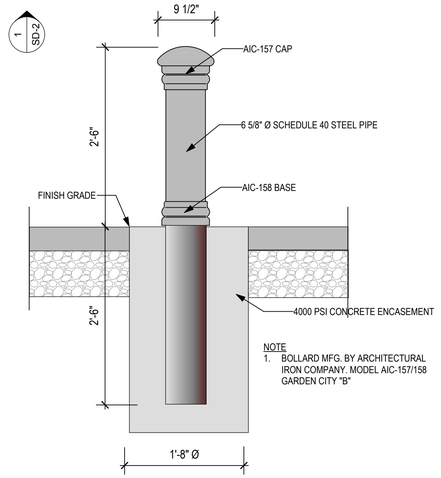


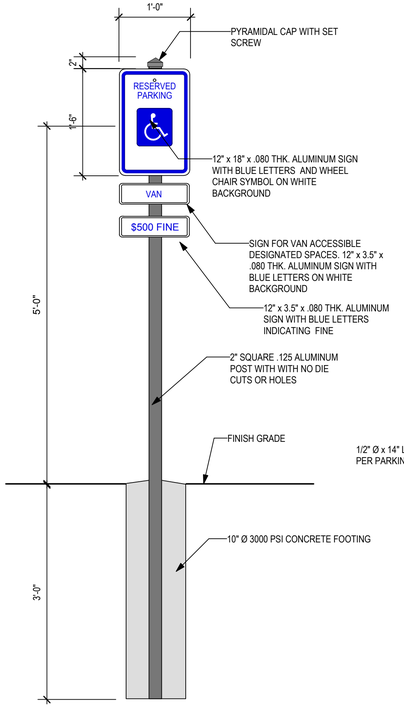
A SD-1 **DETAIL: STEP FOOTING**
Scale: 1/4" = 1'-0"



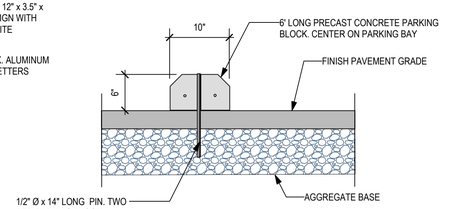
1-4 SD-1 **ELEVATION: WALL**
Scale: 1/4" = 1'-0"



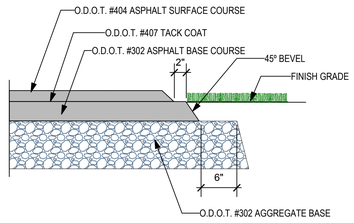
D SD-1 **DETAILS: BOLLARD**
Scale: 1" = 1'-0"
S-Details®©



E SD-1 **DETAIL: PARKING LOT SIGNAGE**
Scale: 1" = 1'-0"
S-Details®©



B SD-1 **DETAIL: PARKING BLOCK**
Scale: 1" = 1'-0"
S-Details®©

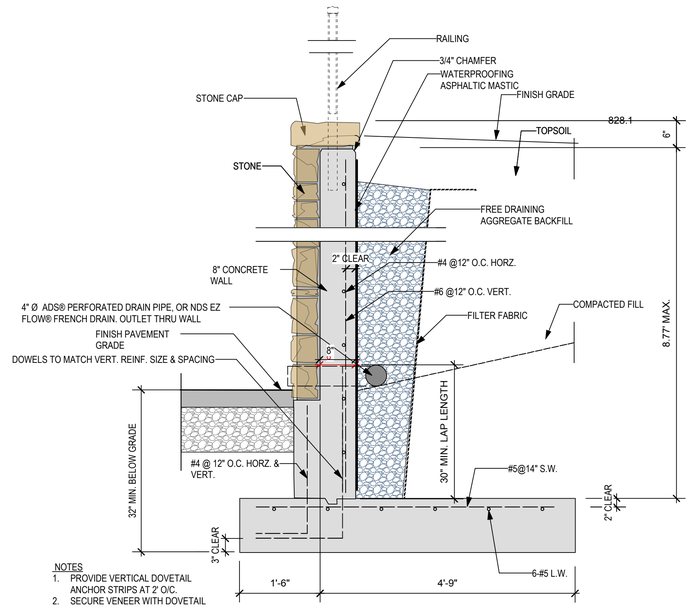


C SD-1 **DETAIL: PAVEMENT EDGE**
Scale: 1" = 1'-0"
S-Details®©

REINFORCED CONCRETE STANDARDS

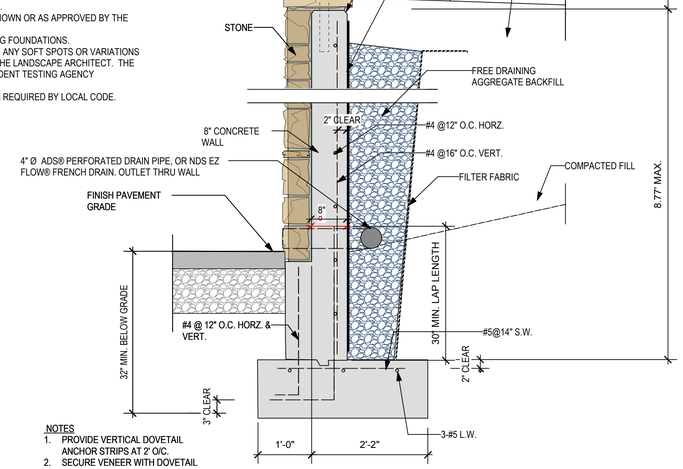
1. UNLESS SPECIFICALLY SHOWN OTHERWISE, ALL CONCRETE WORK, DETAILING, FABRICATION AND PLACING OF BARS AND CONCRETE SHALL BE GOVERNED BY THE LATEST REVISIONS OF: ACI 301, ACI 315, AND ACI 318, AND CRSI RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS. ACI 306 AND ACI 305 FOR WINTER AND HOT WEATHER CONCRETING, RESPECTIVELY. THE CONTRACTOR SHALL AT ALL TIMES HAVE A COPY OF THE RELEVANT SPECIFICATIONS QUOTED ABOVE ON THE SITE AND THE SUPERVISORY PERSONNEL SHALL BE THOROUGHLY FAMILIAR WITH THE CONTENTS THEREOF.
2. CONTINGENCIES: PROVIDE LEAN CONCRETE UNDER FOUNDATIONS FOR EARTH FILL DUE TO ACCIDENTAL OVER EXCAVATION OR SOFT SPOTS.
3. CONCRETE REQUIREMENTS AND LOCATION IN JOB:
   - CLASS LOCATION
   - I. FOOTINGS 4,000 PSI
   - II. EXTERIOR CONCRETE ABOVE GRADE 4,000 PSI 5% +/- 1% AIR CONTENT
   - III. EARTH FILL 1,500 PSI

   SUBMIT CONCRETE MIXES FOR APPROVAL IN ACCORDANCE WITH ACI 301 BEFORE PLACING ANY CONCRETE.
4. REINFORCING BAR REQUIREMENTS: ASTM A615, A616, A617 - GRADE 60.
5. MISCELLANEOUS CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE LANDSCAPE ARCHITECT.
6. VERIFY LOCATIONS OF WALLS, PIPING, CONDUIT, ETC. BEFORE PLACING FOUNDATIONS.
7. DESIGN SOIL BEARING PRESSURE IS ASSUMED AT 1,500 PSF MINIMUM. ANY SOFT SPOTS OR VARIATIONS IN SUBSURFACE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT. THE DESIGN BEARING CAPACITY SHALL BE FIELD VERIFIED BY AN INDEPENDENT TESTING AGENCY SPECIALIZING IN SOILS INVESTIGATIONS.
8. ALL EXTERIOR FOOTINGS ARE TO EXTEND BELOW FINISHED GRADE AS REQUIRED BY LOCAL CODE.



NOTES
1. PROVIDE VERTICAL DOVETAIL ANCHOR STRIPS AT 2' O/C.
2. SECURE VENEER WITH DOVETAIL CLIPS AT 1' O/C VERTICALLY.

1 SD-1 **SECTION: RETAINING WALL**
Scale: 3/4" = 1'-0"



NOTES
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2 SD-1 **SECTION: RETAINING WALL**
Scale: 3/4" = 1'-0"

DETAILS

SCALE: AS NOTED

STATE OF OHIO
JAMES I. BURKART
334
REGISTERED
LANDSCAPE ARCHITECT

OHIO Utilities Protection SERVICE
Call Before You Dig

DRAWN BY: J. BURKART
CHECKED BY: J. BURKART
DATE: 4.30.14

REVISIONS:

DRAWING PHASE:
- [ ] SCHEMATIC
- [ ] DESIGN DEVELOPMENT
- [X] CONSTRUCTION DOCUMENT
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PROJECT:
Dublin Arts Center Parking Improvements
7125 RIVERSIDE DRIVE
DUBLIN, OHIO

BURKART
DISTINCTIVE LANDSCAPE ARCHITECTURE
JAMES BURKART ASSOCIATES, INC., 2337 LAKE FOREST WAY, WESTERVILLE, OH 43082, 614-895-5699
e-mail jburkart@burkart.com

JBA #: 1403
SHEET: SD-1

SECTION 01 45 16.13

CONTRACTOR QUALITY CONTROL

PART I GENERAL

1.01 DESCRIPTION

A. Contractor quality control requirements apply to all site work operations of each respective division/ section contained herein.

B. Furnish all required labor, material, transportation, tools, supplies, and equipment necessary for the complete and satisfactory construction of each respective section herein.

1.02 QUALIFICATIONS

A. All applicable project business entities to hold all appropriate local, state, and federal business licenses, professional service licenses, and registrations.

1.03 QUALITY ASSURANCE

A. Standards:

1. Materials and methods of construction shall comply with the American Association of State Highway and Transportation Officials (AASHTO) and or equivalent state transportation/highway department construction and material specification, latest edition.
2. Contractor's supervisory personnel shall be thoroughly familiar with this material as it applies to this project.

B. Comply with all applicable local, state, and federal ordinances, rules, and regulations regarding materials, methods of work, and disposal of excess and waste materials.

C. Obtain and pay for all required inspections, permits, certificates, licenses, tests, taxes, landfill charges, and all other fees. Provide notices required by governmental authorities. File drawings necessary to obtain permits. Schedule necessary inspections and tests. Submit certificates of inspection and approval upon completion of work.

D. Materials and methods of construction shall comply with the latest edition of the following applicable standards:

1. American Concrete Institute (ACI).
3. American Joint Committee of Horticultural Nomenclature “Standardized Plant Names”
4. American Standard for Nursery Stock
5. Asphalt Institute (AI).
9. American Society of Testing and Materials (ASTM).
10. American Water Works Association (AWWA).
12. National Crushed Stone Association (NCSA).
17. American Association of State Highway & Transportation Officials (AASHTO)

E. Provide and pay for all engineering testing and inspections during applicable work operations.

1.04 SUBMITTALS

A. Provide samples of all materials proposed for substitution and applicable to the work scheduled upon request of the Landscape Architect. All materials shall comply with their respective standards. Submit manufacturers product data, specifications, structural components, and installation instructions for factory- fabricated items, including paint products.

B. Provide detailed Site Record Drawings ("As Built").

1. Indicate vertical and horizontal locations, with dimensions referenced to permanent surface improvements for all new underground constructed and installed items that deviate from the geometric dimensions and elevations shown on the original plans. Also Indicate vertical and

horizontal locations, with dimensions referenced to permanent surface improvements for all items that are schematically show on plans.
2. Dimension all changes to horizontal hardscapes and plantings that deviate from the original plans, including any specie changes.
3. Indicate vertical and horizontal locations, with dimensions referenced to permanent surface improvements for all unknown underground utilities that were discovered during construction, or existing utilities shown on the plans that deviate from the original plans.
4. Identifying field changes and detail all changes made by change order.

C. Upon work acceptance, submit written operational and maintenance manuals. Provide format and contents as directed by the Landscape Architect.

D. Field measure, and or template all cast, cut, fabricated, and erected items. Prior to installation submit shop drawings including plan, elevations, details, sections, connections, anchorage, and accessory items for approval by the landscape Architect.

E. Submit material samples for all items requested by the Landscape Architect.

1.05 EXISTING SURFACE AND UTILITY CONDITIONS

A. Bidders to visit site prior to bidding and assume full responsibility for visual observation of existing conditions.

B. Contractor to check and verify existing grades and conditions prior to start of work. Report discrepancies to Landscape Architect.

C. The Landscape Architect makes no representations as to the accuracy of the topographic information provided on drawings.

1.06 SUB-SURFACE DATA

A. If soil boring locations are indicated on the drawings, report containing data obtained from subsurface investigation will be available for examination by Bidders upon request.

B. Data obtained from subsurface investigation is the best representation of factual information available at this time. Bidders are to examine this data prior to bidding and draw their own conclusions.

C. No claim for additional compensation or extension of contract time will be allowed on account of subsurface conditions consistent with the data contained in the above reference report.

D. The Landscape Architect makes no representations as to the accuracy of sub-surface data provided.

1.07 PROJECT CONDITIONS

A. Locate and identify existing underground and overhead services and utilities within the contract limit work areas. Provide adequate means of protection of utilities and services designated to remain. Repair utilities or works of other contractors damaged during site work operations at contractor's expense.

B. When uncharted or incorrectly charted underground piping or other utilities and services are encountered during site work operations, promptly notify the Landscape Architect, appropriate utility contractor and applicable utility company immediately to obtain procedure directions. Cooperate with the applicable utility company in maintaining the active service in full operation.

C. Locate, protect, and maintain benchmarks, monuments, control points and project engineering reference points. Re-establish disturbed or destroyed items at Contractor's expense.

D. Perform site work operations and the removal of debris and waste materials to assure minimum interference with streets, walks, and other adjacent facilities.

E. Obtain governing authorities written permission when required to close or obstruct street, walks, and adjacent facilities. Provide alternate routes around closed or obstructed traffic ways when required by governing authorities.

F. Control dust caused by the work. Dampen surfaces as required. Comply with pollution control regulations of governing authorities.

G. Protect existing buildings, paving, trees, plants, plant beds, lawns, and other services or facilities on site and adjacent to the site from damage caused by site work operations. Replace paving, curbing, lawns, landscaping, and all finished surfaces removed to install underground work, except where new surfaces are provided as part of the work. Cost of repair and restoration of damaged items at the contractor's expense. Exhibit care to clear grass, and groundcovers in root zones of trees scheduled to remain. Where utility trenching is required within root zones, cleanly cut damaged roots and hand dig/tunnel through root zones within drip line of tree.

H. During the construction period maintain all plants, lawns, plant bed and all hardscapes scheduled to remain within the construction limits. Provide necessary watering, insect control, and regular bed weeding. Mow lawns at least once weekly, and keep all hardscapes free of mud and debris.

I. The owner will occupy the premises and adjacent facilities during the entire period of construction. Perform site work operations to minimize conflicts with the owner during their use of the premises.

J. Do not close off use of the facilities until completion of a stage of construction
Allows an alternative usage. Conduct operations to assure least inconvenience to the owner.

K. Provide necessary hose and watering equipment required for applicable work.

L. Suspend construction for items, which are affected by cold weather.

M. Cutting and Patching:

1. Cut through concrete and masonry with core drills. Jackhammers not permitted.
2. Materials and finishes for patching shall match existing cut surface materials and finish. Exercise special care to provide patching openings in exterior walls water- tight.

N. Provide and pay for portable electric generators to meet temporary electrical needs during construction operations.

O. Provide temporary barricades and warning lights as required for protection of project work and public safety.

P. Promptly notify the Landscape Architect of unexpected sub-surface conditions.

Q. The lead contractor is to provide a portable toilet for all contractors located at the job trailer area. Maintain the portable toilet on a regular basis until completion of the project. The owner’s restroom(s) are not to be used.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver all materials in the manufacturers original packaging with tags and labels intact and legible.

B. Handle and store materials to prevent damage, deterioration, and rust.

C. Exercise care to prevent damage to installed materials and works.

D. Stack materials off ground to ensure proper drainage and ventilation.

E. Stockpile and handle aggregates to prevent mixing with foreign materials.

1.09 WARRANTY

A. Unless noted otherwise in a specific division and /or section contained herein, beginning upon acceptance of the work by the Landscape Architect, the contractor(s) is contractually bound to provide the owner with a one-year minimum warranty against all defects, and malfunctions associated with materials, factory manufactured products, field fabricated items, and construction installation workmanship. The contractor(s) are to submit any appropriate manufacture’s extended warranty certificates.

B. Promptly replace and/or repair all defects found within warranty period.

C. Warranty shall include the responsibility for removal and replacement of all work, which may conceal defective underground work.

D. Provide recommended maintenance procedures for all applicable completed work.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. Comply with sections that apply to work proposed.

PART 3 EXECUTION

3.01 PREPARATION

A. Examine the areas and conditions under which site work is performed. Do not proceed with the work until unsatisfactory conditions are corrected.

B. Consult the records and drawings of adjacent work and of existing services and utilities, which may affect site work operations.

3.02 DISPOSAL OF WASTE MATERIAL

A. Stockpile, and haul away from the site, and legally dispose of all waste materials, including excess excavated materials, rock, trash and debris.

B. Continuously Maintain the site and disposal route(s) clear, clean, and free of debris. Hose off roadways, streets and pavements to control dust.

C. On-site burning of combustible materials is not permitted.

3.03 CLEANING

A. Maintain site in a clean workable condition during construction operations. Clean up debris, discarded bags, boxes, containers and cuttings on a regular periodic basis.

B. Upon completion of site work, remove tools and equipment. Provide site clear, clean, trash and debris free, and suitable for site work operations.

C. Flush clean all site drainage pipe and structures. Remove all silt, trash, and debris just prior to acceptance of work.

END OF SECTION 01 45 16.13

SECTION 02 41 13

SELECTIVE SITE DEMOLITION

PART 1 GENERAL

1.01 DESCRIPTION

A. Perform Selective Site Demolition work and site preparation work as shown and applicable to field conditions.

B. Refer to companion division 01 45 16.13 “Contractor Quality Control” for supplemental requirements associated with this division.

C. Related Sections

1. Section 31 20 00 Earth Moving.

PART 2 PRODUCTS

2.01 MATERIALS

A. Materials and equipment: As selected by the Contractor, except as indicated.

B. Tree protection:

1. Snow fencing or methods and materials shall be acceptable to the Landscape Architect.

C. Herbicides: Approved by the Environmental Protection Agency.

PART 3 EXECUTION

3.01 CLEARING, PREPARATION, AND AFTER CONSTRUCTION TREE REMEDIATION

A. Locate and suitably identify trees and improvements indicated to remain.

B. Clear and grub areas within contract limits as required for site access and execution of the work.

C. Ball & Burlap trees, plants, as noted. Remove undergrowth, other vegetation, and debris, except items indicated to remain. Strip all weeds and grass.

1. Remove stumps and roots to a clear depth of 36" minimum below sub-grades. Remove stumps and tree roots to their full depth to within 5'-0" of underground structures, utility lines, footings, and paved areas.

D. Protect existing trees scheduled to remain against injury or damage, including cutting, breaking, or skinning of roots, trunks or branches; smothering by stockpiled construction materials, excavated materials or vehicular traffic within branch spread (drip line). If proposed construction falls within the drip line of existing trees, take special care not to rip, tug, or tear the existing roots to be removed. Saw cut all roots in conflict with forms or permanent improvements. Roots are to be cut back no more than one foot from the form or permanent improvement. Immediately backfill exposed roots to finish grade with topsoil to alleviate air-drying of the roots.

1. Protect designated trees with a temporary wood protection fence as shown at the direction of a ISA Certified Arborist. The ISA Certified Arborist shall have final approval for enclosure size and location. The enclosures shall remain in place until final conclusion of all construction activities. If the fence is removed or damaged, all work shall cease until the fence is repaired. No equipment or storage of equipment shall be inside the fenced in area. Tree roots shall be protected from runoff or spillage while mixing, placing, or storing construction materials. Where construction is present under canopy of the trees, vehicles and/or foot traffic shall be kept to a minimum within the drip line. Where construction activity needs to take place, under the canopy of a tree, mulch or wood chips could be applied in a 3-4” layer to dissipate construction traffic.
2. An ISA Certified Arborist is to inspect the site weekly to monitor the construction process near the tree, and be on site for any activities that may result in any damage to the tree or roots. The ISA Certified Arborist shall be on site during any digging or excavation within the drip line of the tree

3. Water trees and other vegetation required to maintain good health during the course of construction operations and until acceptance.
4. Repair trees scheduled to remain and damaged by construction operations in a manner acceptable to the ISA Certified Arborist. Repair damaged trees promptly to prevent progressive deterioration caused by damage.
5. The soil should be aerated after construction where there was excessive compaction under the canopy of all trees. Aeration of the soil is to be done 10 feet beyond the drip line and no closer than 36” to the tree trunk. Use an auger drill and 2” bit or air spade to make holes a minimum of 12” deep at 24” on center. Back fill holes with an approved organic matter.
6. Replace trees scheduled to remain and damaged beyond repair by construction operations, as determined by the ISA Certified Arborist, with trees of similar size and species. Cost for tree replacement shall be determined in accordance with the Tree Evaluation Formula as described in "A Guide to the Professional Evaluation of Landscape Trees, Specimen Shrubs, and Evergreens" published by the International Society of Arboriculture.
7. Fires are not permitted on site at any time.

3.02 SITE IMPROVEMENTS

A. Remove existing site improvements within contract limits as indicated on plans in acceptable manners to the Landscape Architect.

B. Remove existing sidewalks, walls, and paving, including all base material, plus other miscellaneous items required to construct the new improvements. Cut existing sidewalks, and paving in neat, straight lines to provide uniform, even transition from new to adjacent existing work. Cut back all existing pavements a sufficient distance to permit forming and installation of new work.

C. Leave below grade voids open and clean. Fill materials will be provided and grading performed under Section 31 20 00.

D. Existing materials:

1. Paving base materials where indicated, may remain in place.

3.03 SALVAGED MATERIALS

A. Remove, store, and protect existing plants and stone wall material as directed by the City of Dublin.

B. Materials, items, and equipment not scheduled for reinstallation or salvaged for the Owner's use are the property of the Contractor. Remove cleared materials from the site as the work progresses. Storage and sale of Contractor's salvage items on site is not permitted.

END OF SECTION 02 41 13

SCALE:NONE

SITE SPECIFICATIONS

OHIO Utilities Protection SERVICE
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DRAWN BY: J. BURKART
CHECKED BY: J. BURKART
DATE: 4.30.14

REVISIONS:

DRAWING PHASE:
- [ ] SCHEMATIC
- [ ] DESIGN DEVELOPMENT
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PROJECT: Dublin Arts Center Parking Improvements
7125 RIVERSIDE DRIVE
DUBLIN, OHIO

STATE OF OHIO
JAMES I. BURKART 334
REGISTERED LANDSCAPE ARCHITECT

BURKART
DISTINCTIVE LANDSCAPE ARCHITECTURE
JAMES BURKART ASSOCIATES, INC. 5317 LAKE FOREST WAY,
WESTERVILLE, OH 43082, 614-895-3959
e-mail jburkart@burkart.com

JBA #: 1403
SHEET: SSP-1

SECTION 03 30 00

CAST-IN-PLACE-CONCRETE

PART 1 GENERAL
1.01 DESCRIPTION
A. Provide all cast-in-place concrete retaining wall as shown and specified.

B. Refer to companion division 01 45 16.13 "Contractor Quality Control" for supplemental requirements associated with this division.

C. Related Sections
1. Section 31 20 00 Earth Moving.
2. Section 04 43 00 Stone Masonry

1.02 QUALITY ASSURANCE
A. Testing and inspection: Performed by a qualified independent testing laboratory.

B. Provide and pay for testing and inspection during concrete operations. Laboratory shall be acceptable to the Landscape Architect.

C. Maintain field records of time, date of placing, curing, and removal of forms of concrete in each portion of work.

D. Do not change source or brands of cement and aggregate materials during the course of the work.

1.03 SUBMITTALS
A. Submit concrete mix designs. Obtain approval before placing concrete.

B. Product data:
1. Submit complete materials list of items proposed for the work. Identify materials source.
2. Submit admixture and accessory item product data.
3. Submit material certificates for aggregates and reinforcing.

C. Submit reinforcement shop drawings. Details shall comply with ACI 315 Manual of Standard Practice for Detailing Reinforced Concrete Structures. Indicate bar sizes, spacing, locations, and quantities of reinforcing steel, bending and cutting schedules, and supporting devices.

D. Submit concrete delivery tickets. Show the following:
1. Batch number.
2. Mix by class or sack content with maximum size aggregate.
3. Admixtures.
4. Air content.
5. Slump.
6. Time of loading.

E. Submit concrete test reports.

1.04 PROJECT CONDITIONS
A. Work notification: Notify Landscape Architect at least 24 hours prior to installation of concrete.

B. Establish and maintain required lines, surfaces, and elevations.

C. Do not install concrete work over wet, saturated, muddy, or frozen subgrade.

D. Do not install concrete when air temperature is below 40 degrees F. Use of calcium chloride, salt, or any other admixture to prevent concrete from freezing is prohibited.

E. Protect adjacent work.

PART 2 PRODUCT
2.01 MATERIALS
A. Portland cement: ASTM C150, Type I, natural color.
1. Provide white Portland cement for integrally colored concrete.

B. Aggregate: Provide ASTM C33 normal weight aggregates, 1" maximum size, clean, uncoated crushed stone or other locally acceptable sound aggregate free of materials which cause staining or rust spots; fine aggregate shall be clean natural sand.

C. Water: Clean, fresh, and potable.

D. Air-entraining admixture: ASTM C260.

E. Water-reducing admixture: ASTM C494.

2.02 MIXES
A. Provide ASTM C94 ready-mixed concrete. It is unacceptable to batch mix concrete at the site. Use ACI 301 Method 1 or Method 2 to determine mix proportions.
1. Strength: 4,000 psi minimum at 28 days.
2. Slump range: 2" to 4" maximum for consolidation by vibration.

B. Provide an approved water-reducing admixture in all concrete.

C. Provide an air-entraining admixture in all concrete. Air content 5% to 7%.

D. Indicate water added to mix at job site on each delivery ticket. Show quantity of water added. Site water tempered mixes exceeding specified slump range will be rejected as not complying with specification requirements.

2.03 ACCESSORIES
A. Forms: Wood, plywood, or metal of sufficient strength to resist concrete placement pressure and to maintain horizontal and vertical alignment during concrete placement. Provide forms straight, free of defects, and distortion. Minimize joints by using largest practical sizes.
1. Wood: Provide S4S surfaced plank wood forms where board form finish is scheduled, member sizes indicated.
2. Plywood: Provide high density overlaid/sheathing grade, plywood sound one face, undamaged, with clean true edges where plywood form finish is scheduled.
3. Metal: Provide steel concrete forms with well matched, tight fitting, adequately stiffened where metal form finish is scheduled.
4. Form liners: Provide form liners of type and manufacture if noted on drawings for special textured form finish.
5. Provide exposed edges chamfered.
6. Provide form ties, formwork accessories, and anchorages of size required and of sufficient strength to maintain formwork in proper alignment and tolerances while placing concrete.

B. Tubular column and support forms: Round, laminated paper or fiber plies spirally wound. Inside surface treated with form release agent. Provide wall thickness adequate to resist concrete loads.

C. Form release agent: Non-staining chemical form release agent free of oils, waxes, and other materials harmful to concrete.

PART 3 EXECUTION
3.01 EXAMINATION
A. Examine sub grades and installation conditions. Do not start concrete work until unsatisfactory conditions are corrected.

B. Place no concrete in footings before inspection and acceptance of bearing surfaces.

3.02 PREPARATION
A. Verify lines, levels, and locations of formed concrete work. Verify that form dimensions comply with drawing dimensions

B. Design, erect, support, brace, and maintain formwork to support all applied vertical and lateral loads. Construct formwork to provide correct size, alignment, elevation, and position of concrete work.

C. Design and erect formwork to permit removal without damage to cast-in-place concrete surfaces and adjacent materials during stripping.

D. Earth cuts may be used as foundation forms, when excavations are straight and true, not exposed in the finished structure and acceptable to the Landscape Architect. Any indication of excessive slope or failure of earth cuts will require side formwork. Hand-trim sides and bottoms of earth cuts and remove loose dirt before placing concrete.

E. Install, align, and level forms. Support and brace forms in place. Maintain following maximum tolerances:
1. Horizontal and vertical lines: 1/4" in 10'-0".
2. Location dimensions indicated: 1/4"
3. Cross sectional dimensions: Plus or minus 1/4".

F. Coat form surfaces in contact with concrete with form release agent. Clean forms after each use and coat with form release agent as necessary to assure separation from concrete without damage. Apply before to placing reinforcing steel, anchoring devices, and embedded items.

G. Locate, place, and support reinforcement as indicated.
1. Provide reinforcing bars adequately supported and secured to prevent displacement.

H. Install, set, and build-in items furnished by other trades. Provide adequate notification for installation of necessary items.

3.03 INSTALLATION
A. Concrete placement: Comply with ACI 304 "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete", and as specified.

B. Protect concrete from physical damage or reduced strength due to weather extremes during mixing, placing, and cold weather comply with ACI 306, "Recommended Practice for Cold Weather Concreting". In hot weather comply with ACI 305, "Recommended Practice for Hot Weather Concreting".

C. Place concrete continuously between construction joints. Deposit in horizontal layers not greater than 24". Consolidate layers while still plastic to prevent cold joints.

D. Place all footings full thickness in one operation, without changing in proportions; screed to proper elevation; and floated.

E. Consolidate installed concrete using mechanical vibrating equipment supplemented with hand rodding and tamping. Work concrete thoroughly around reinforcement and other embedded items and into all parts of formwork.

F. Finishes
1. Formed Finishes: Comply with ACI 301 for as-cast rough form finish.

G. Acceptance: The presence of serious honeycomb or excessive misalignment of forms shall be sufficient cause for rejection and replacement of the concrete affected at the contractor's expense.

3.07 FIELD QUALITY CONTROL
A. Provide field quality control testing and inspection during concrete operations.

B. Contractor shall provide adequate notice, cooperate with, provided access to the work, obtain samples, and assist test agency and their representatives in execution of their function.

C. Testing:
1. Provide slump test on first load of concrete delivered each day and whenever requested due to change in consistency or appearance of concrete.
2. Provide air indicator tests and air meter tests for all air-entrained concrete.
a. Perform air indicator test with a "Chase" AE35 or equal air indicator, and air meter test in accordance with ASTM C231 or C173. Test first load of concrete delivered each day.
b. Furnish copies of field records and tests reports as listed for strength tests.
3. Strength testing:
a. Provide 1 set of 3 test specimens for each 20 cu. yds. Placed in any one day. Secure samples in accordance with ASTM C172 and mold specimens in accordance with ASTM C31.
b. Test 1 specimen at 7 days and 2 specimens at 28 days in accordance with ASTM C39.
c. Furnish copies of field records and test reports as follows:
2 copies to Landscape Architect
1 copy to Contractor
1 copy to Ready Mix Supplies

4. Record the exact location of the concrete in the work represented by each set of cylinders and show on test reports.
5. Provide an insulated moist box for protection of the test cylinders until shipped to the laboratory.

3.08 CLEANING
A. Clean adjacent surfaces from concrete spills, spatters, drips, and stains.

B. Perform cleaning during installation of concrete and upon completion of the work. Repair damage resulting from concrete work.

END OF SECTION 03 30 00

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DRAWN BY: J. BURKART
CHECKED BY: J. BURKART
DATE: 4.30.14

REVISIONS:

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PROJECT: Dublin Arts Center Parking Improvements
7125 RIVERSIDE DRIVE
DUBLIN, OHIO

BURKART
DISTINCTIVE LANDSCAPE ARCHITECTURE
JAMES BURKART ASSOCIATES, INC. 5737 LAKE FOREST WAY,
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e-mail jburkart@jburkart.com

SITE SPECIFICATIONS

SCALE: NONE

STATE OF OHIO
JAMES I. BURKART 334
REGISTERED LANDSCAPE ARCHITECT

JBA #: 1403
SHEET: SSP-2

SECTION 04 43 00

STONE MASONRY

PART 1 GENERAL
1.01 DESCRIPTION
A. Provide retaining wall exterior stone masonry work as shown and specified.

B. Refer to companion division 01 45 16.13 “Contractor Quality Control” for supplemental requirements associated with this division.

1.02 QUALITY ASSURANCE
A. Comply with the American National Standards Institute (ANSI) A41.1, Building Code Requirements for Masonry, for the types of stone masonry construction indicated.

B. Installation: Performed only by experienced stonemasons with a satisfactory record of performance on complete projects of comparable size and quality.

C. Sample panel: Before starting stone masonry work, provide a sample panel using materials, bond, and joint tooling indicated for the project work. Build panel at the site of full thickness and approximately 6' ht. x 6' wide. Provide the range of color, texture, and workmanship proposed for the work. Correct and rebuild sample panel until Landscape Architect's acceptance of the work. Retain panel during construction as a standard for completed stone masonry work.
1. The approved sample panel may be a portion of the work and remain in place. Locate the sample panel as directed by the Landscape Architect.

D. Provide stone from only one quarry to ensure consistent color range and texture.

E. Do not change source or brands or mortar materials during the course of the work.

1.03 SUBMITTALS
A. Submit manufacturer's product data for stone, colored mortar, and accessory required.

B. Submit cutting and setting drawings for cut stonework showing dimensions and arrangement and provisions for jointing, anchoring, fastening, and support.

C. Submit samples of each type and color of stone required. Include the full range of exposed color and texture proposed for the work.

D. Submit samples of colored mortar selected for the work.

1.04 PROJECT CONDITIONS
A. Do not use metal accessories with loose coatings, including ice, which will reduce bond.

B. Protect partially completed stone masonry work against weather damage and moisture, when work is not in progress. Cover the tops of all walls with a strong waterproof, non-staining membrane. Extend membrane at least 2'-0" down both sides of walls and hold securely in place.

D. Cold weather construction:
1. Precondition masonry materials to maintain 50 degrees F. when installed.
2. Do not install stone masonry work when the temperature of the outside air is below 40 degrees F. and falling unless suitable means acceptable to the Landscape Architect are provided to protect work from cold and frost and ensure that mortar will set without freezing. Comply with International Masonry Industry All-Weather Council cold weather construction and protection recommendations.
3. No masonry work will be permitted when outside air temperature is below 25 degree F.
4. Do not use frozen materials or materials mixed or coated with ice or frost.

5. Do not build on frozen work. Remove and replace masonry work damaged by frost or freezing.
6. Do not use anti-freeze or calcium chloride in any mortar.
7. Protect completed masonry work against freezing for not less than 4 days after laying.

G. Protect adjacent work from damage, soiling, and staining during masonry work operations.

H. Natural variations in color and markings which are characteristic of the stone materials and do not impair strength or appearance are acceptable. Provide only sound stone, free from defects detrimental to appearance and durability.

I. Color range, texture, and finish of rough stone materials shall be within the range of the Landscape Architect's accepted samples.

PART 2 PRODUCTS
2.01 ROUGH STONE MATERIALS
A. Rough stone: To match building stone, patterns, and coursing.

2.02 MORTAR MATERIALS
A. Portland cement: ASTM C150, Type I, natural color.
1. Provide white Portland cement for white mortar.

B. Masonry cement: ASTM C91.
1. Provide white non-staining type for white mortar.

C. Hydrated lime: ASTM C207, Type S.

D. Aggregate:
1. Masonry mortar: ASTM C144, clean masonry sand, not over 10% to pass #100 sieve.
2. White mortar: Natural white sand or ground white stone.
3. Masonry grout: ASTM C404, clean pea gravel, maximum 3/8" size.

E. Water: Clean, fresh, and potable.

F. Colored mortar pigment: Lime-proof and alkali-proof mineral oxide pigments:
1. Color selected by the Landscape Architect.

2.03 STONE MORTAR MIXES
A. Provide water repellent admixture in all mortar used for stone masonry work. Add to mix in accordance with manufacturer's recommendations. Maximum 2% by weight of the Portland cement mortar content.

B. Setting mortar: 1 part non-staining masonry cement, 1 part hydrated lime, and 6 parts damp loose sand.

C. Pointing mortar: 1 part non-staining masonry cement, 1 part hydrated lime, and 6 parts white damp loose sand.

D. Measure and batch materials either by volume or weight. Use accurate measuring devices to ensure uniformity and coloration of mix. Shovel count measurement of sand is not acceptable.

E. Mix cement materials and aggregate in a clean mechanical mixer for at least 5 minutes. Add water in amount to provide satisfactory workable consistency of mortar.

F. Re-temper mortar as required within 2 hours of mixing to replace water lost by evaporation. Place mortar in final position within 2-1/2 hours of the initial mixing. Discard mortar after 2-1/2 hours of the initial mixing.

PART 3 EXECUTION
3.01 EXAMINATION
A. Examine substrates and installation conditions. Do not start stone masonry work until unsatisfactory conditions are corrected.

3.02 PREPARATION
A. Establish lines, levels, and coursing.

B. Clean rough stone before setting. Provide edges and surfaces free of dirt any foreign matter. Wet stone with clean water prior to setting.

C. Do not use stone units with chips, cracks, voids, stains, or other visible defects.

3.03 INSTALLATION: ROUGH STONE
A. Provide necessary field cutting as stone is installed.

B. Select stone at the job site and install materials to provide an even distribution of various colors throughout the work. Maintain stone as clean as possible as work progresses.

C. Erect rough stone plumb, accurately set in position, securely anchored to back-up walls.

D. Lay stone with full mortar coverage on horizontal and vertical joints.
1. Provide flush struck and plastered finish mortar joints. Mortar joints may vary in thickness from 1/2" minimum to 1-1/2" maximum.

E. Anchor rough stone to back-up with dovetail wall ties spaced not over 16" on center vertically and horizontally.

F. As work progresses, build in items furnished by other trades. Fill in solidly with masonry around built-in items.

3.04 CLEANING
A. Remove and replace stone units, which are loose, broken, stained, or otherwise damaged. Provide new matching units, install as specified, and point-up joints to eliminate evidence of replacement. Re-point defective and unsatisfactory joints and as required to provide a neat, uniform appearance.

B. Clean stonework not less than 6 days after completion of work, using clean water and stiff-bristle brushes. Do not use wire brushes, acid type cleaning agents or other cleaning compounds with caustic or harsh fillers.

C. Cleaning agents and methods shall be acceptable to the Landscape Architect.

END OF SECTION 04 43 00

SECTION 05 52 00

METAL RAILINGS

PART 1 GENERAL
1.01 DESCRIPTION
A. Provide metal railings on retaining wall as shown and specified. Work includes:
1. Fabrication and installation of custom metal railings.

B. Refer to companion division 01 45 16.13 “Contractor Quality Control” for supplemental requirements associated with this division.

1.02 SYSTEM DESCRIPTION
A. Performance requirements:
1. Metal railings shall be designed and constructed to comply with current State of Ohio Building Code requirements.
2. Railings shall be designed and constructed to carry a concentrated load of 200 pounds applied at any point and in any direction along the top railing member and for a uniform load of 50 pounds per foot applied horizontally at the required guard height and a simultaneous uniform load of 100 pounds per foot applied vertically downward at the top of the guard.
3. Railing system infill material shall be designed and constructed for a horizontal concentrated load of 200 pounds applied on a 1 square foot area at any point in the system including intermediate rails or other elements serving this purpose.
4. Railing concentrated and uniform load conditions and infill loading conditions shall not be applied simultaneously.
5. Railing structural loading conditions shall not exceed the allowable design working stress of the materials, anchorage and connecting devices utilized.

1.03 QUALITY ASSURANCE
A. Welding: Comply with American Welding Society (AWS) "Structural Welding Code." Qualify welding processes and welding operators in accordance with AWS "Standard Qualification Procedure." All welders are to be AWS certified.

B. Powder coater: To be a Certified Coater Member, in good standing with the Powder Coating Institute (PCI).

C. Shop assembly: Pre-assemble items in shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for re-assembly and coordinated installation.

D. Manufacture: Reputable steel fabricators with at least 5 years of experience.

1.04 SUBMITTALS
A. Submit shop drawings for fabrication and erection of metal railings. Include plans, elevations and details of sections and connections. Show anchorage and accessory items.
1. Comply with NAAMM minimum standards for construction, proportions and dimensions of fixed metal railings.
2. Do not proceed with fabrication before shop drawing acceptance.

B. Submit manufacturer's materials certification. Include the following:
1. Carbon steel materials and finishes.
2. Grout.

1.05 PROJECT CONDITIONS
A. Field measure the existing construction to ensure proper coordination and fit of new work.

1.07 DELIVERY, STORAGE AND HANDLING
A. Deliver, store and handle metal railings to prevent damage and deterioration. Protect from damage after installation.

PART 2 PRODUCTS
2.01 MATERIALS
A. Metal surfaces, general: For fabrication of work exposed to view, use only materials that are smooth and free of surface blemishes, including pitting, seam marks, roller marks, rolled trade names and roughness. Remove such blemishes before cleaning, treating and application of surface finishes.

B. Carbon steel:
1. Structural plates, shapes, bars and embedded anchors: ASTM A36, 36-ksi steel.
2. Structural tubing: Cold-formed ASTM A500 welded and seamless.

C. Welding electrodes: Comply with AWS D1.1 when applicable and AWS D1.3 for welding base metals less than 1/8" thick; type required for materials welded.

D. Non-metallic grout: Corps of Engineers CRD-C621, pre-mixed, shrinkage resistant, non-metallic, non-corrosive, non-staining grout. Provide grout specifically recommended by manufacturer for exterior applications of type indicated.

E. Fasteners: Provide stainless steel or zinc-coated fasteners only. Select fasteners for the type, grade and class required.

F. Non-metallic grout: Corps of Engineers CRD-C621, pre-mixed, shrinkage resistant, non-metallic, non-corrosive, non-staining grout. Provide grout specifically recommended by manufacturer exterior applications of type indicated. Acceptable products and manufacturers:
1. Euco N-S; Euclid Chemical Co., Cleveland, OH.
2. Crystex; L & M Construction Chemicals, Omaha, NE.
3. Masterflow 713; Master Builders Co., Cleveland, OH.
4. Sonogrout; Sonneborn Building Products, Minneapolis, MN.

2.02 FABRICATION
A. Shop fabricate items complete and ready for installation. Use materials of size and thickness indicated, when not indicated, as required to produce strength and durability in finished product for use intended. Work to dimensions shown or accepted on shop drawings, using proven details of fabrication and support. Use type of materials shown or specified for various components of work. Meet structural requirements for items of structural nature.
1. Form exposed work true to line and level with accurate angles and surfaces and straight edges.
2. Ease exposed edges, except as otherwise indicated.
3. Weld shop connections, except as otherwise indicated. Weld corners and seams continuously, complying with a #2 finish as recommended AWS. At exposed connections, grind exposed welds smooth and flush to match and blend with adjoining surfaces.
4. Make joints and intersections tight fitting. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners wherever possible.
5. Provide for anchorage of type required, coordinated with supporting structure. Fabricate and space anchoring devices to provide adequate support for intended use.
6. Fabricate joints that will be exposed to weather in a manner to exclude water or provide weep holes where water may accumulate.

B . Powder Coating: Polyester powder coat all joints, corners, edges and exposed surfaces of all railings.
1. Remove scale, rust and other deleterious materials before applying Polyester Powder Coating. Clean off heavy rust and loose mill scale in accordance with SSPC SP-2 “Hand Tool Cleaning” as required.
2. Remove oil, soil, lubrication greases, metal oxides, welding scales etc.

3. Immediately after surface preparation, electro statically powder coat with a semi-gloss finish 2-4-mil thick. Heat cure each railing unit at 390 degrees Fahrenheit for 10 minutes or per manufactures recommendations. Provide full coverage of joints, corners, edges and exposed surfaces.

PART 3 EXECUTION
3.01 EXAMINATION
A. Examine substrates, supporting structure and installation conditions. Do not proceed with metal railing installation until unsatisfactory conditions have been corrected.

B. Installation constitutes acceptance of existing conditions and responsibility for satisfactory performance.

3.02 INSTALLATION
A. Perform cutting and fitting required for installation of metal railings. Set work accurately in location, alignment and elevation, plumb, level, true and free of rack, measured from established lines and levels. Provide temporary bracing for items that are to be built into concrete construction.

B. Fit exposed connections accurately together to form tight hairline joints. Weld connections that are not to be left as exposed joints. Grind exposed joints smooth and touch-up shop paint coat to match adjacent surfaces.

C. Field welding: Comply with AWS Code for procedures of manual shielded metal-arc welding, appearance and quality of welds made and methods used in correcting welding work.

D. Railings: Adjust railings before anchoring to ensure matching alignment at abutting joints. Space posts at spacing indicated, or if not indicated, as required by design loadings. Plumb posts in each direction. Secure posts and railings to substrate construction as indicated.
1. Anchor posts in concrete by core drilling holes not less than 5" deep and 3/4" greater than outside diameter of posts. Clean holes of all loose material, insert posts and fill annular space between post and concrete with non-shrink, non-metallic grout, mixed and placed to comply with grout manufacturer's directions.

E. Cleaning: Remove all mud, spattered concrete, grout, dirt and loose coatings from railings.

END OF SECTION 05 52 00

SITE SPECIFICATIONS

SCALE: NONE

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DRAWN BY: J. BURKART
CHECKED BY: J. BURKART
DATE: 4.30.14

REVISIONS:

DRAWING PHASE:
- [ ] SCHEMATIC
- [ ] DESIGN DEVELOPMENT
- [X] CONSTRUCTION DOCUMENT
- [X] PERMIT SET
- [ ] BID SET

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PROJECT: Dublin Arts Center Parking Improvements
7125 RIVERSIDE DRIVE
DUBLIN, OHIO

STATE OF OHIO
JAMES I. BURKART
334
REGISTERED
LANDSCAPE ARCHITECT

B U R K A R T
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JBA #: 1403
SHEET: SSP-3

SECTION 31 20 00

EARTH MOVING

PART 1 GENERAL

1.01 DESCRIPTION

A. Perform all applicable earth moving and utilities excavation and backfilling as shown on drawings and/or is incidental to the construction of the Project.

B. The Landscape Architect makes no representations as to the balancing of on site cut and fill. It is the Contractor's responsibility to import all required fill and topsoil required, or to haul away and properly dispose of all excess materials.

C. Refer to companion division 01 45 16.13 “Contractor Quality Control” for supplemental requirements associated with this division.

D. Related Sections

1. Section 02 41 13 Selective Site Demolition.
2. Section 33 40 00 Storm Drainage Systems.
3. Section 32 92 19 Seeding

1.02 ENGINEERING

A. Employ a Professional Surveyor registered in the state of the project to layout all lines and grades necessary to execute the work.

B. Erect and maintain control points as required.

C. At completion of work, provide Landscape Architect with a certification from Professional Surveyor that lines, grades and elevations of work as completed are in accordance with Contract Documents. If field conditions necessitate any adjustment of lines, grades or elevations, Contractor to furnish Landscape Architect with a complete record of all such adjustments.

D. Employ a Professional Soils Engineer registered in the state of project to provide field quality control, including soils testing and inspections to determine appropriate compaction.

E. All survey and Soils Engineering costs to be paid by the Earth Moving contractor.

PART 2 PRODUCTS

2.01 MATERIALS

A. All existing site topsoil and any imported topsoil, fill, and backfill material is subject to testing and inspection. Provide all additional imported topsoil and fill as required to complete the work.

B. On-site fill: Clean soil or soil-rock mixture free of foreign materials, organic material, and debris. Suitable excavated materials removed to accommodate new construction may be used for fill, subject to an acceptable Soil Engineer's approval.

C. Imported fill: Clean natural clay subsoil, free of foreign matter, large rocks, organic material, and debris. Notify the Landscape Architect minimum 10 working days before using imported fill. Designate borrow area. Sample and test as directed by the Soils Engineer.

D. Granular base: AASHTO M43, #6, (3/8" to 3/4") clean uniformly graded stone or gravel.

E. Under pavement Granular fill: AASHTO M43 #10, crushed stone or gravel. Grits are not acceptable.

F. Under pavement Controlled Density Fill: Flowable, self-compacted, cementitious material consisting of water, Portland cement, aggregates, and fly ash. Controlled Density Fill to have an unconfined compressive strength of 200 psi or less to allow for future excavation.

G. Utility Pipe bedding and cover fill: Clean, natural river or bank sand, free of rubble and rocks of 1" diameter or more.

H. Existing site topsoil or imported topsoil: Natural, friable, fertile soil characteristic of productive local soil, reasonably free of Rocks, stones, clay lumps, roots, and other foreign matter.

1. All proposed topsoil material shall be acceptable to the Landscape Architect.

I. Other materials required for proper completion of work: As selected by Contractor and acceptable to Landscape Architect.

PART 3 EXECUTION

3.01 SITE GRADING

A. Perform grading within contract limits, including adjacent transition areas, to new elevations, levels, profiles, and contours indicated. Provide subgrade surfaces parallel to finished surface grades. Provide uniform levels and slopes between new elevations and existing grades.

B. Strip topsoil to its full depth at building areas, and all areas to be re-graded, resurfaced, or paved within contract limit work area.

C. Stop topsoil stripping at trees designated to remain, a sufficient distance to prevent damage to the root system. Perform grading, within branch spread of existing trees to remain, by hand methods to elevations indicated

D. Stockpile topsoil in a location acceptable to the Landscape Architect, for use in finish grading and preparation of lawns and planting beds.

E. Grade surfaces to assure areas drain away from structures and to prevent ponding and pockets of surface drainage. Provide subgrade surfaces free from irregular surface changes and as follows:

1. Rough grading: Plus or minus 0.10 ft. subgrade tolerance. Finish required will be that ordinarily obtained from either blade-grader or scraper operations.
2. Provide subgrade surface free of exposed boulders or stones exceeding 2" in greatest dimension in paved areas and 1" lawn and planting areas.
3. Fill all areas of settlement to proper grade before subsequent construction.
4. Lawn and planting areas: Allow for 4" average depth of topsoil at lawn areas, and 12" depth at shrub and flower planting areas, except as otherwise indicated on the drawings.
5. Paved areas: Shape surface of subgrade areas to line, grade, and cross-section indicated. Provide compacted subgrade suitable to receive paving base materials. Subgrade tolerances are not to exceed plus 0, minus 1/2". Tolerances are not to exceed 1/2" in 10'-0".

3.02 EXCAVATING

A. Excavate for structures to elevations and dimensions shown. Extend excavation a sufficient distance from foundations to permit placing and removal of formwork, installation of materials, services, and inspection. Hand trim foundation excavations to final grade just before concrete is placed. Remove loose, soft materials, and all organic matter. Footings shall bear on approved undisturbed bearing soil.

B. Excavate for curbs, walks, and paving to cross section, elevations, and grades indicated. Allow for base material.

C. Earth excavation shall include the satisfactory removal and disposal of all materials encountered, regardless of the nature of the materials, the condition of the materials at the time they are excavated, or the manner in which they were excavated, except materials classified as rock excavation.

D. Extra excavation: Obtain Landscape Architect's written authorization before performing extra excavation work.

3.03 SITE DRAINAGE AND UTILITIES EXCAVATING AND BACKFILLING

A. Excavate banks of trenches as nearly vertical as possible to the line of narrow trench limit. Realign trenches to avoid the root structures of mature trees. If the alignment cannot be adjusted, excavate through large root zones by tunneling.

B. Trim and shape trench bottoms to exact line and grade, free of irregularities, lumps, and projections.

C. Provide trench dimensions as required. Allow for proper installation of services and inspection.

D. Remove unstable material encountered below the pipe invert elevation and replace with compacted fill.

E. Install all piping according to appropriate and applicable standards.

F. Backfill trenches in 6" compacted layers until there is a cover of not less than 24" over sewers and storm drains and 12" over other utility lines. Pipe specifically coated to protect against corrosion, shall be protected to avoid damage of the coating. Place remaining backfill materials in 12" compacted layers, Backfill evenly on both sides of the utility line for its full depth. Provide thorough compaction of fill under pipe haunches.

G. Do not backfill against drainage and utility structures until services have been inspected. Concrete shall have been in place for at least seven days. Mortar joints and plaster coating of masonry structures and mortar joints of precast manhole sections shall be thoroughly set and shall have been in place at least three days. Backfill shall be deposited in horizontal layers not over 8" in compacted thickness uniformly spread and compacted to the specified density. Take special precautions to prevent wedging action against the walls of structures.

H. When compacting by rolling or operating heavy equipment parallel with the pipe, exercise care to prevent displacement of, or injury to, the pipe. Movement of construction machinery over drainage and utility lines at any stage of construction shall be at the Contractor's risk. Replace or repair damaged pipe as directed by the Landscape Architect as Contractor's expense.

I. Provide properly compacted under pavement granular fill or controlled density fills for drainage and utility trenches placed under pavements and slabs-on-grade. The properly compacted under pavement granular fill or controlled density fill is to extend beyond the edges of pavement a distance equal to the depth of the trench. Do not exceed 10'-0".

3.04 FILLING, BACKFILLING, AND COMPACTING

A. Obtain inspection and approval of subgrade surfaces prior to filling operations. Scarify, dry, and compact soft and wet areas; remove and replace unsuitable subgrade materials with an approved compacted fill material. Take corrective measures before placing fill materials. The Landscape Architect shall assume no responsibility for subgrade suitability.

1. Topsoil not permitted as fill or backfill material within structures, or under any paved areas.

B. Soil stabilization: When exposed subgrade surfaces become spongy during construction operations and soil stabilization if required, stabilize subgrade materials as directed by the Soils Engineer. Soil stabilization will be paid for as a change in work. Obtain Landscape Architect's written authorization before performing soil stabilization work. Soil stabilization will not be paid for as an extra change in work when it is a result of the contractor's failure to perform proper drainage filling, backfilling and compacting operations.

C. Spread approved fill materials uniformly in layers not greater than 8" of loose thickness over entire fill area.

1. Lift thickness requirements may be modified by Soils Engineer to suit equipment and materials or other conditions when required to assure satisfactory compaction.
2. Moisture-condition all fill material by aerating or watering and thoroughly mix material to obtain moisture content permitting proper compaction.
3. Place and compact each layer of fill to indicated density before placing any additional fill material. Repeat filling until proposed grade, profile, or contour is attained.
4. Suspend fill operations when satisfactory results cannot be obtained because of environmental or other unsatisfactory site conditions. Do not use muddy or frozen fill materials. Do not place fill material on muddy or frozen subgrade surface.
5. Maintain ground surface conditions, which will permit the adequate drainage of rainwater to prevent pockets or ponding of surface water. When fill placement is interrupted by rain, remove wet surface materials or permit to dry before placing additional fill material.
6. Extend fill at buildings a minimum of 5'-0" beyond building foundations, except as otherwise indicated.

D. Place backfill materials in uniform layers not greater than 8" loose thickness over entire backfill area.

1. Use hand tampers or vibrating compactors at retaining walls, and similar locations. Do not use large rolling equipment adjacent to retaining walls.
2. Do not backfill against foundation walls or retaining walls until walls for bearing surfaces have reached design strength or are properly braced, and backfilling operations approved. Provide clean backfill materials, except where granular materials are indicated. Compact in maximum 8" layers.

E. Fill all areas of settlement to proper grade before subsequent construction operations are performed.

F. Compaction:

1. Provide compaction control for all fill and backfill.
2. Compact top 12" of subgrade and each layer of fill or backfill material at slabs-on-grade, retaining walls, and paved areas to 100% of maximum dry density at optimum moisture content in accordance with ASTM D698 Standard Proctor Method or AASHTO T99 Moisture Density Test. Extend compaction at least 5'-0" at both sides of foundations and retaining walls and at least 1-0" beyond slabs-on-grade and paving.
3. Compact top 6" of subgrade and each layer of fill material at lawns and unpaved areas to 90% of maximum dry density at optimum moisture content in accordance with ASTM D698 Standard Proctor Method or AASHTO T99 Moisture Density Test.
4. Water settling, puddling, and jetting of fill and backfill materials as a compaction method are not acceptable.
5. Maintain moisture content of materials, during compaction operations within required moisture range to obtain indicated compaction density.

3.05 FINISH GRADING

A. Maintain levels, profiles, and contours of sub grades as shown on plans. Allow for proper depth of topsoil to meet finish grades

B. Rough grade topsoil eliminating rough, high and low areas to ensure positive drainage to within 1” of final grade for subsequent final finish grade by seeding contractor.

C. Prior to turning over topsoiled areas to the seeding contractor, remove all stones over 1”diameter, roots, weeds, plastic containers, concrete chunks, brickbats, sticks, roots, rubbish, or other foreign matter. Provide surfaces suitable for final soil preparation provided under lawn and planting work.

D. Manually install topsoil at trees to remain. Avoid damage to root systems.

E. Maintenance:

1. Protect finish graded areas from traffic and erosion. Keep free of trash and debris. Repair and re-establish grades in settled, eroded, and damaged areas.
2. Where completed areas are disturbed by construction operations or adverse weather, scarify, reshape, and compact to required density.

3.06 FIELD QUALITY CONTROL

A. Field quality control, including soils testing and inspection during earthwork operations, is to be performed by a Professional Soils Engineer. Soils Engineer will perform functions including, but not necessarily limited to, the following:

1. Test proposed fill materials to verify suitability for use, gradation of material, moisture-density relation by ASTM D698 Standard Proctor Method, design bearing value and percent of organic materials.
2. Provide supervision for the continuous monitoring of subgrade preparation, fill placement and compaction including Visual examinations at the site and bearing tests as required, to verify that the sub grade surfaces are adequate and meet or exceed the design bearing values. Provide testing during filling and compaction within proposed building and pavement areas to determine that materials placed meet all specified requirements. Soils Engineer will also provide periodic inspection and testing during site area filling and compaction operations.
3. Perform any required additional laboratory testing.

B. The Soils Engineer will report directly to contractor, but shall provide the Landscape Architect with information, reports, and recommendations. Copies of all reports relating to work under this Section will be furnished to Landscape Architect no later than five (5) working days following execution of work reported.

C. Contractor shall provide adequate notice, cooperate with, provide access to the work, obtain samples, and assist Soils Engineer and its employees in execution of its function.

D. Fill materials: Test proposed materials to verify suitability for use, gradation of material, moisture-density relation by ASTM D698 Standard Proctor Method, design bearing value, and percent of organic materials.

E. Subgrade surfaces: Based on visual examination at the site, provide bearing tests as required to verify subgrade surfaces are adequate and meet or exceed design bearing valves.

F. Compaction operations: Provided testing during structure slabs and paved areas filling and compaction meets specified requirements. Provide periodic inspection and testing during site area filling and compaction operations.

G. Foundation excavations: Based on visual examination at the site, provide bearing test as required to verify bearing surfaces are adequate and meet or exceed design bearing valves.

H. When, during progress of work, field tests indicate that installed compacted materials do not meet specified requirements, provide additional compaction until specified density is achieved, or remove and replace defective materials with new materials as directed by Landscape Architect and/or Soil Engineer. Cost of additional labor, materials, and testing to attain specified density is at the Contractors expense.

I. The Contractor may, at his own option and for his own purpose, make other tests and inspections at the Contractor’s own expense.

END OF SECTION 31 20 00

SITE SPECIFICATIONS

SCALE: NONE

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DRAWN BY: J. BURKART
CHECKED BY: J. BURKART
DATE: 4.30.14

REVISIONS:

DRAWING PHASE:
- [ ] SCHEMATIC
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PROJECT: Dublin Arts Center Parking Improvements
7125 RIVERSIDE DRIVE
DUBLIN, OHIO

BURKART
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e-mail jburkart@jburkart.com

STATE OF OHIO
JAMES I BURKART 334
REGISTERED LANDSCAPE ARCHITECT

JBA #: 1403
SHEET: SSP-4

SECTION 32 12 16

ASPHALT PAVING

PART 1 GENERAL

1.01 DESCRIPTION

A. Provide asphalt paving as shown and specified.

B. Refer to companion division 01 45 16.13 "Contractor Quality Control" for supplemental requirements associated with this division.

C. Related Sections

1. Section 31 20 00 Earth Moving.
2. Section 33 40 00 Storm Drainage Utilities.

1.02 QUALITY ASSURANCE

A. Testing and inspection: Performed by a qualified independent testing laboratory upon Landscape Architect's request. Contractor shall provide and pay for testing and inspection of applicable work.

B. Provide material furnished by an asphalt producer regularly engaged in the production of hot-mix, hot-laid asphalt paving materials.

C. Materials and methods of construction shall comply with the American Association of State Highway and Transportation Officials (AASHTO), The Asphalt Institute, and Ohio Department of Transportation (O.D.O.T.) construction and material specification, latest edition, and as specified.

D. Tolerances:

1. Pavement thickness:
   a. Base course: Plus or minus 1/2".
   b. Surface course: Plus or minus 1/4".
2. Finished surface smoothness:
   a. Base course: Maximum 3/8" in 10'-0".
   b. Surface course: Maximum 1/4" in 10'-0", any direction.

1.03 PROJECT CONDITIONS

A. Weather limitations:

1. Do not install base course materials over wet or frozen sub-grade surfaces.
2. Do not apply prime and tack coat materials when temperature is 50 degrees F. or below. Do not apply to wet base surface.
3. Install the asphalt base course only when base is dry and air temperature is 40 degrees F. or above. Install the asphalt surface course only when the base is dry and air temperature is 50 degrees F. or above.

B. Paving design is based on adequate CBR strength of the sub-grade soils. Promptly notify Landscape Architect of unsatisfactory sub-grade conditions before constructing base course.

PART 2 PRODUCTS

2.01 MATERIALS

A. Sub grade fill: Clean natural inert subsoil material free of organic mater, rubbish, debris, and rocks greater than 4" diameter. Sub grade fill shall be acceptable to Soils Engineer/ Landscape Architect.

B. Asphalt paving: Thickness as scheduled on drawings. Asphalt paving job mixtures are to ensure a durable pavement. Mixes to be formulated for proper workability without segregation, distortion, displacement, bleeding or loss of stability.

1. Prime coat: Cut back asphalt or cut back asphalt emulsion per local standards. Asphalt prime coat maybe omitted at the option of the paving contractor.

2. Crushed aggregate base: Sound angular, crushed stone, crushed gravel, crushed slag or other types of suitable locally available materials complying with National Crushed Stone Association (NCSA) master range grading or locally accepted standards.
3. Asphalt base course: Aggregate type/gradation and asphalt content per locally accepted standards. Aggregate to be 1 1/2" or 1" maximum size as per local standards.
4. Asphalt leveling/ intermediate/binder course: Aggregate type/ gradation and asphalt content per locally accepted standards. Aggregate to be 1" maximum size.
5. Tack coat: Bituminous Liquid asphalt emulsion, per locally accepted standards.
6. Asphalt surface course: Aggregate type/ gradation and asphalt content per locally accepted standards. Aggregate to be 1/2" maximum size.
7. All aggregates are to be crushed Limestone.

C. Pavement marking paint: Krylon Industrial "line-up" alkyd striping paint, Rust-Oleum Professional latex traffic striping paint or equal. Color -white.

D. Parking blocks: Pre-cast reinforced concrete, 8" width x 6" height x 6'-0" long, with a minimum of 2 anchor pinholes. Provide 1/2" diameter x 14" long hot dip galvanized finished steel anchor pins for securing parking blocks.

PART 3 EXECUTION

3.01 PREPARATION

A. Proof roll the sub-grade and do all necessary rolling and compacting to obtain firm, even sub-grade surface. Fill and consolidate depressed areas. Remove unsuitable materials, replace with clean fill, and compact to 100% of the maximum dry density in accordance with ASTM D-698 Standard Proctor Method or AASHTO T99 Moisture Density Test.

B. Frame adjustments:

1. Verify frames for manholes, catch basins, and other such units, within areas to be paved, are at their proper elevation.
2. Adjust frames as required to match paving. Provide temporary closures over openings until completion of rolling operations. Remove closures at completion of the work. Set covers to grade, flush with the surface of adjoining pavement surface.

3.02 INSTALLATION: GENERAL

A. Comply with Asphalt Institute (AI) MS-3 Asphalt Plant Manual for material storage, control and mixing, and for plant equipment and operation.

B. Comply with Section 31 20 00 requirements.

3.03 INSTALLATION: BASE MATERIALS

A. Install stone leveling course where indicated on drawings, to firm-up sub-grade; depth as scheduled.

B. Remove loose and foreign material from compacted sub-grade immediately before application of base materials. Do not start base work until all other work, which may damage this course, is completed.

C. Install crushed aggregate base materials up to 6" thickness using acceptable compaction equipment in single course; install 6" and greater thickness in two equal courses, total compacted depth as scheduled. Compact the aggregate base materials using acceptable compaction equipment to achieve local crushed aggregate density standards. A uniform-smooth, hard surface, complying with the lines, grades, elevations, and cross-sections shown shall be achieved. Moisture may be added at job site to aid compaction.

D. Apply prime coat uniformly to crushed aggregate base at the rate of 0.15 to 0.25 gal. per sq. yd. Allow prime coat to dry and cure as required.

E. Asphalt base may not be used as a wearing surface during construction operations.

3.04 INSTALLATION: SURFACE MATERIALS

A. Install asphalt surface materials in two courses, leveling/intermediate/binder course and surface course, total compacted depth as scheduled. Apply tack coat to leveling course if 48 hours pass between installation of leveling course and surface course or if leveling course surface becomes contaminated with foreign material.

B. Place the asphalt mixture on the prepared surface. Inaccessible and small areas may be placed by hand. Place each course to the required grade, cross-section, and specified compacted thickness.

C. After the first strip has been placed and rolled, place all succeeding strips and extend rolling to overlap previous strips. Complete the base course for a section before placing surface course materials.

D. Carefully make joints between old and new pavements, and between successive day's work, to ensure a continuous bond between adjoining work. Construct joints to have the same texture, density, and smoothness as other sections of the asphalt course.

E. Apply tack coat to contact surfaces of existing pavement, curbs, and structures abutting pavement.

F. Begin rolling operations when the asphalt mixture will bear the weight of the roller without excessive displacement. Compact areas inaccessible to rollers with vibrating plate compactors.

G. Perform breakdown, intermediate and finish rolling until the asphalt mixture has been compacted to the required surface density and smoothness. Continue rolling until all roller marks are eliminated. Provide a smooth compacted surface true to thickness and elevations required.

1. Check grade and smoothness after the breakdown rolling. Repair unacceptable areas by loosening and filling with hot loose material before continuing rolling.
2. Perform intermediate rolling as soon as possible after the breakdown rolling, while the mixture is hot and in condition for proper compaction. Continue the intermediate rolling until the mixture has been thoroughly compacted.

H. Remove and replace mixtures that become mixed with foreign materials and all defective areas. Cut out such areas and fill with fresh, hot asphalt. Compact by rolling to the required surface density and smoothness.

I. If any deficient areas are discovered after final rolling, remove deficient areas for the full length and width of the deficiency. Cut sides perpendicular and parallel to the direction of traffic with edges vertical. Apply a tack coat before placing asphalt mixture.

J. After final rolling, do not permit vehicular traffic on the pavement until it has cooled and hardened sufficiently.

K. Protect newly placed material from traffic by barricades or other suitable methods acceptable to the Landscape Architect.

3.05 FIELD QUALITY CONTROL

A. Provide field quality control testing and inspection during asphalt paving operations.

B. Contractor shall provide adequate notice, cooperate with, provide access to the work, obtain samples, and assist Test Agency and their representatives in execution of their function.

C. Before constructing base course, field verify sub-grade surfaces are adequate and meet or exceed density requirements.

D. When requested, the contractor shall submit materials for laboratory tests on asphalt pavement mixes to determine compliance with specified requirements. Provide a minimum of one (1) test for each type of paving required.

E. Perform 1 series of compaction tests for crushed aggregate base for each course for each day's work.

F. Test in-place asphalt base course and surface courses for compliance with specified thickness when requested by Landscape Architect. Take a sufficient number of 4" diameter pavement core specimens of each completed course to determine thickness requirements are met. If not met additional pavement course shall be provided to obtain the required minimum thickness. Repair test specimen holes to match adjacent work.

G. Test for surface smoothness with 10'-0" straight edge. Deficient areas shall be defined, removed, and replaced, or adjusted to surface smoothness requirements by methods acceptable to the Landscape Architect.

H. When, during progress of work, field tests indicate that installed compacted materials do not meet specified requirements, remove defective materials, install new materials, and re-test at Contractor's expense, as directed by the Landscape Architect.

3.06 MARKINGS

A. Thoroughly clean finished asphalt surfaces before applying striping and markings. Remove loose materials, dirt, and dust.

B. Apply two coats of marking paint, at manufacturer's recommendation rates, with mechanical equipment. Provide uniform lines with straight edges, 4" minimum width.

C. Provide lines, lettering, and markings shown to define parking spaces and traffic flow.

1. Stencil all parking spaces noted as handicapped parking, with blue paint, with the international symbol of access.

3.07 Parking Blocks

A. Locate, space and align all parking blocks as shown or as approved by the Landscape Architect. Drive a steel anchor pin through each parking block anchor pinhole. Steel anchor pin to be flush with the top of the parking block.

END OF SECTION 32 12 16

SITE SPECIFICATIONS

SCALE: NONE

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DRAWN BY: J. BURKART
CHECKED BY: J. BURKART
DATE: 4.30.14

REVISIONS:

DRAWING PHASE:
- [ ] SCHEMATIC
- [ ] DESIGN DEVELOPMENT
- [X] CONSTRUCTION DOCUMENT
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PROJECT:
Dublin Arts Center Parking Improvements
7125 RIVERSIDE DRIVE
DUBLIN, OHIO

STATE OF OHIO
JAMES I. BURKART 334
REGISTERED LANDSCAPE ARCHITECT

B U R K A R T
DISTINCTIVE LANDSCAPE ARCHITECTURE
JAMES BURKART ASSOCIATES, INC. 5737 LAKE FOREST WAY,
WESTERVILLE, OH 43082, 614-885-5699
e-mail jburkart@jburkart.com

JBA #: 1403
SHEET: SSP-5

SECTION 32 13 13
CONCRETE PAVING

PART 1 GENERAL
1.01 DESCRIPTION
A. Provide paving, wall footings, and applicable to work as shown and specified.

B. Refer to companion division 01 45 16.13 "Contractor Quality Control" for supplemental requirements associated with this division.

C. Related Sections:
1. Section 31 20 00 Earth Moving.

1.02 QUALITY ASSURANCE
A. Testing and inspection: Performed by a qualified independent testing laboratory upon Landscape Architects request. Contractor shall provide and pay for testing and inspection to applicable work.

B. Materials and methods of construction shall comply with American Association of State Highway and Transportation Officials (AASHTO) or equivalent local governing authorities construction and material specifications or state Department of Transportation/Highway Construction and Materials Specification, latest edition.

C. Maintain filed records of time, date of placing, curing, and removal of forms of concrete in each portion of work.

D. Do not change source or brands of cement and aggregate materials during the course of the work.

1.03 SUBMITTALS
A. Submit concrete mix designs. Obtain approval before placing concrete.

B. Submit concrete delivery tickets. Show the following:
1. Batch number.
2. Mix by class or sack content with maximum size aggregate.
3. Admixtures.
4. Air content.
5. Slump.
6. Time of loading.

C. Submit concrete test reports.

1.04 PROJECT CONDITIONS
A. Comply with Section 01 45 16.13 requirements.

B. Do not install concrete work over wet, saturated, muddy, or frozen sub-grade.

C. Do not install concrete when air temperature is below 40 degrees F. Use of calcium chloride, salt, or any other admixture to prevent concrete from freezing is prohibited.

PART 2 PRODUCTS
2.01 MATERIALS
A. Portland cement: ASTM C150, Type I, natural color.

B. Aggregate: Provide ASTM C33 normal weight aggregates 1" maximum size, clean, uncoated crushed stone or other locally accepted sound aggregate free of materials which cause staining or rust spots; fine aggregate shall be clean natural sand.

C. Water: Clean, fresh, and potable.

D. Air-entraining admixture: ASTM C260

E. Water-reducing admixture: ASTM C494

F. Granular base: ASSHTO M43, #6, (3/8" to ¾") clean uniformly graded stone or gravel.

2.02 MIXES
A. Provide concrete ready-mix complying with AASHTO requirements and containing an approved air-entraining and water-reducing admixture.
1. Strength: 4,000 PSI minimums at 28 days/6-1/2 bags.
2. Slump range: 2" to 4" maximum.
3. Air content: 4% to 6%.

B. Provide an approved water-reducing admixture in all concrete.

C. Indicate water added to mix at job site on each delivery ticket. Show quantity of water added. Site water tempered mixes exceeding specified slump range will be rejected as not complying with specification requirements.

2.03 ACCESSORIES
A. Forms: Wood or metal of sufficient strength to resist concrete placement pressure and to maintain horizontal and vertical alignment during concrete placement. Provide forms straight, free of defects and distortion, and height equal to full depth of concrete work.
1. Provide 2" nominal thickness, surfaced plank wood forms for straight sections. Use flexible metal, 1" lumber or plywood forms to form radius bends.

B. Form release agent: Non-staining chemical form release agent free of oils, waxes, and other materials harmful to concrete.

C. Sealant Joint Filler: ASTM D-1752, ½" thick pre-molded non-extruding, non-staining closed cell foam polyethylene, PVC foam or sponge rubber, full slab depth less ½".

D. Curing compound ASTM C309, non-yellowing, non-staining liquid membrane-forming type containing a fugitive dye. Chlorinated rubber compounds not acceptable for exterior use.

E. Granular Base: AASHTO M43 #6 (3/8" to ¾") clean uniformly graded stone or gravel.

F. Joint Sealant: Single component, self-leveling, pourable, traffic grade polyurethane sealant. The joint sealant is to meet or exceed ASTM C-920 type S, Grade P, Class, 25 Use T, M.Color(s) of joint sealant to be selected by the Landscape Architect from standard manufactures color chart.

PART 3 EXECUTION
3.01 PREPARATION
A. Proof roll the sub-grade and do all necessary rolling and compacting to obtain firm, even sub-grade surface. Fill and consolidate depressed areas. Remove all none compactable materials, and replace

with clean fill and compact to 100% of the maximum dry density in accordance with ASTM D-698 Standard Proctor Method.

B. Provide minimum 4" depth of compacted granular base material Compact granular base to 95% of the maximum dry density in accordance with ASTM D-693 Standard Proctor Method.

C. Remove loose material and debris from base surface before placing concrete.

D. Set forms to the required grades and lines, rigidly braced and secured. Install sufficient quantity of forms to allow continuous progress of work.

E. Install, align and level all forms. Stake and brace all forms in place. Maintain following grade and alignment tolerances:
1. Top of form: Maximum 1/8" in 10'-0".
2. Vertical face: Maximum ¼" in 10'-0".

F. Coat form surfaces in contact with concrete with form release agent. Clean forms after each use and coat with form release agent as necessary to assure separation from concrete without damage.

G. Install, set, and build-in work furnished under other specification sections. Provide adequate notification for installation of necessary items.

3.02 INSTALLATION
A. Concrete placement:
1. Comply with ACI 304 "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete", and as specified.
2. Protect concrete from physical damage or reduced strength due to weather extremes during mixing, placing, and curing. In cold weather comply with ACI 306, "Recommended Practice for Cold Weather Concreting". In hot weather comply with ACI 305, "Recommended Practice for Hot Weather Concreting".
3. Moisten base to provide a uniform dampened condition at the time concrete is placed. Verify manholes or other structures are at required finish elevation and alignment before placing concrete.
4. Place and spread concrete to the full depth of the forms. Use only square-end shovels or concrete rakes for hand spreading and consolidating concrete. Exercise care during spreading and consolidating operations to prevent segregation of aggregate.
5. Place concrete in a continuous operating between expansion joints. Provide construction joints when sections cannot be place continuously.
6. Place concrete in one course, monolithic construction, for the full width and depth of concrete work. Provide minimum 4" thick walks.
7. Strike-off and bull-float concrete after consolidating. Level ridges and fill voids. Check surface with a 10'-0" straightedge. A ¼" tolerance maximum is allowed in 10'-0". Fill depressions and re-float repaired areas. Derby the concrete surface to achieve a smooth level surface ready for the final finishing.

B. Joints:
1. Construct control, expansion, and construction joints properly aligned with face perpendicular to concrete surface.
2. Sawcut joints not to be less than one-fifth (1/5) of the concrete thickness. When sawcut joints joints are not indicated, provide spacing equal to slab width and not greater than 5'-0" on center.
3. Provide construction joints at the end of all pours and at locations where placement operations are stopped for a period of more than 30 minutes, except where such pours terminate at expansion joints.

5. Provide expansion joints with joint fillers at concrete work abutting walls, structures, walks, and other fixed objects.
6. Provide joints at maximum 30'-0" for pavements, and walks. Align expansion joints in abutting walks.
7. Install sealant joint fillers recessed to allow for ½" deep Joint Sealant.
8. Provide joint fillers in single lengths for the full slab width, whenever possible. Fasten joint filler sections together when multiple lengths are required.

C. Concrete finishing:
1. Perform concrete finishing using mechanical or hand methods as required.
2. After striking-off and consolidating concrete, smooth the surface by screeding and floating. Adjust the floating to compact the surface and produce a uniform texture.
3. After floating, test surface finish with a 10'-0" straightedge. Provide and distribute concrete as required to remove surface irregularities, and re-float repaired areas to provide a continuous smooth finish.
4. Upon completion of floating, and after bleed water has disappeared and concrete can sustain foot pressure with nominal indentation, cut concrete away from forms. Work edges with an edging tool. Round edges to ½" radius.
5. Provide sidewalk and pavement surfaces with textured light broom finish unless noted otherwise on the plans. Edge outside edges and all joints with a radius-edging tool.
6. Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point-up any minor honeycombed areas. Remove and replace areas or sections with major defects, as directed by the Landscape Architect.

D. Curing:
1. Cure concrete with a non-staining liquid membrane-forming compound to all exposed surfaces at a maximum rate of 200 sq. ft. per gallon.
2. Apply curing compound immediately after final surface texture has been obtained and water sheen has disappeared.
3. Apply curing compound to pavement edges after forms have been removed.

E. Joint Sealants: Using a caulk gun to spread the sealant the full width of the expansion joint, and a minimum of ½" deep. Care should be exercised to provide a smooth and continuous joint, flush with the pavement surface.

3.03 FIELD QUALITY CONTROL
A. Provide field quality control testing and inspection during concrete operations upon Landscape Architects request.

B. Contractor shall provide adequate notice, cooperate with, provide access to the work, obtain samples, and assist test agency and their representatives in execution of their function.

C. Testing:
1. Provide slump test on first load of concrete delivered each day and whenever requested due to changes in consistency or appearance of concrete.
2. Provide air indicator tests and air meter tests for all air-entrained concrete.
3. Perform air indicator test with a "Chase" AE 35 or with ASTM C231 or C173. Test first load of concrete delivered each day.
4. Record the exact location of the concrete in the work represented by each set of cylinders and show on test reports.
5. Provide an insulated moist box for protection of the test cylinders until shipped to the laboratory
6. Furnish copies of all field records and test reports to the Landscape Architect.

D. Strength testing:
1. Provide at least one set of three test specimens for concrete placed in any one day. Secure samples in accordance with ASTM C172 and mold specimens in accordance with ASTM C31.
2. Test one specimen at seven days and two specimens at 28 days in accordance with ASTM C39.

3.04 PROTECTION
A. Protect concrete work from damage due to construction and vehicular traffic until final acceptance. Exclude construction and vehicular traffic from concrete pavements for at least 14 days. When construction traffic is permitted, maintain walks and pavement as clean as possible by removing surface stains and spillage of materials as they occur.

3.05 REPAIR
A. Repair defective concrete to match color and texture of adjacent surfaces as directed by Landscape Architect.

END OF SECTION 32 13 13

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CHECKED BY: J. BURKART
DATE: 4.30.14

REVISIONS:

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PROJECT:
Dublin Arts Center Parking Improvements
7125 RIVERSIDE DRIVE
DUBLIN, OHIO

B U R K A R T
DISTINCTIVE LANDSCAPE ARCHITECTURE
JAMES BURKART ASSOCIATES, INC. 5237 LAKE FOREST WAY,
WESTERVILLE, OH 43082, 614-885-5699
e-mail jburkart@jburkart.com

SCALE: NONE

SITE SPECIFICATIONS

STATE OF OHIO
JAMES I. BURKART 334
REGISTERED LANDSCAPE ARCHITECT

JBA #: 1403
SHEET: SSP-6

SECTION 32 92 19

SEEDING

PART 1 GENERAL

1.01 DESCRIPTION

A. Provide seeded lawns as shown including any disturbed areas. Work includes:

1. Soil preparation
2. Soil amendments
3. Maintenance

B. Refer to companion division 01 45 16.13 "Contractor Quality Control" for supplemental requirements associated with this division.

1.02 QUALITY ASSURANCE

A. Installer Qualifications: A qualified turfgrass Installer whose work has resulted in successful turf grass establishment.

B. Professional Membership: Installer shall be a member in good standing of one of the following: The Professional Landcare Network, the State or National Nursery and Landscape Association, or the State Turfgrass Foundation.

C. Experience: Five years' experience in turf seeding installation.

D. Installer's Field Supervision: Installer to maintain an experienced full-time supervisor on project site when work is in progress.

E. Maintenance Proximity: Not more than ONE hour's normal travel time from Installer's place of business to project site.

F. Pesticide Applicator: State commercial licensed.

1.03 SUBMITTALS

A. Product Data: For each type of product indicated.

1. Pesticides and Herbicides: Include product label and manufacturer's application instructions specific to this Project.
2. Certification of Grass Seed: From seed vendor for each grass-seed mixture stating the botanical and common name, percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
3. Supply National Turfgrass Evaluation Program (NTEP) data for each species to be used.
   a. Qualification Data: For qualified turf and grass Installer.
   b. Product Certificates: For fertilizers from manufacturer.
   c. Material Test Reports: For standardized ASTM D 5268 topsoil.

1.04 PROJECT CONDITIONS

A. Perform seeding work only after planting and other work affecting ground surface has been completed.

B. Provide hose and lawn watering equipment as required if an irrigation system is not present.

C. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

D. Apply pesticides and other chemical products and biological control agents in accordance with requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate

applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver seed and fertilizer materials in original unopened packages or containers, showing weight, certified analysis, and name, telephone and address of manufacturer, and indication of conformance with state and federal laws as applicable. Store in a manner to prevent wetting and deterioration.

B. Store materials at site in an orderly manner at location acceptable to the Landscape Architect.

C. Bulk materials:

1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas and planting beds.
2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
3. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.

1.06 MAINTENANCE SERVICE

A. Initial Turf Maintenance Service: Provide full maintenance by skilled employees of seeding Installer. Begin maintenance immediately after each area is planted and continue until acceptable turf is established but for not less than the following periods:

1. Seeded Turf: 60 days from date of Substantial Completion.
2. When initial maintenance period has not elapsed before end of planting season, or if turf is not fully established, continue maintenance during next planting season.

1.07 WARRANTY

A. Provide a uniform stand of grass by watering, mowing, and maintaining seeded areas until final acceptance. Reseed areas, with specified materials, which fail to provide a uniform stand of grass until all affected areas are acceptable to the Landscape Architect.

PART 2 PRODUCTS

2.01 MATERIALS

A. Lawn (grass) seed: Fresh, clean, and new crop seed mixture complying with AOSA's "Journal of Seed Technology: Rules for Testing Seeds" for purity and germination tolerances. Each seed type certified.

1. Mixed by an approved method.
2. Composed of improved varieties of local seed types suitable for job specific solar exposure, wear ability and disease resistant. Mix to approved proportions by weight and tested to maximum percentages of purity and germination. Seed to be free of noxious weed and other locally unacceptable grass seed types.
3. Test for germination made within preceding six months. Not to exceed 0.25% weed seed. Seeding rates shall be determined by the percent pure live seed, where PLS = % pure seed x % germination x 100.

B. Blends:

1. Seed mixtures not noted on drawings are to be proposed by seeding Contractor and approved by the Landscape Architect at least five (5) days prior to bid date.

C. Fertilizer:

1. Granular or pelletized, guaranteed analysis professional fertilizer composed of non-burning products composed of not less than 50% organic slow acting water-insoluble nitrogen, phosphorous, and potassium.
   a. Composition: 1 part nitrogen, 2 parts phosphorous, and 1 part potassium (NPK 1:2:1) or similar approved composition generally accepted by local nursery trade.

D. Mulch: Green dyed wood cellulose or wood fiber mulch such as Conwed Hydromulch, or Weyerhaeuser Silva-Fiber.

E. Water: Free of substance harmful to seed growth. Hoses or other methods of transportation furnished by Contractor.

F. Jute Mesh Erosion Control Mat: Biodegradable brown open weave made of jute fibers and woven into a jute mesh blanket.

G. Anchor Pins: 6" x 1" x 6" 11 gauge metal pins manufactured by Dewitt or equal.

PART 3 EXECUTION

3.01 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by seeding operations.

B. Protect adjacent and adjoining areas from hydro mulching overspray.

C. Protect grade stakes set by others until directed to remove them.

D. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

E. Verify limits of each type of lawn material with the Landscape Architect in the field before starting lawn work.

F. Limit preparation of seed areas to those ready for immediate seeding.

G. Grade lawn areas to a smooth, free draining even surface with a loose, moderately coarse texture. Roll, scarify, rake, and level as necessary to obtain true, even lawn surfaces and fill depressions as required to drain. Correct all surface irregularities resulting from tillage operations to prevent formation of depressions or water pockets. Seedbed is to be established at approximately 1/2" below all pavements and sidewalks.

H. Cultivate topsoil to provide a firm bed a minimum of 4" deep, free of clods, plastic containers, concrete chunks, brickbats, sticks, roots, rubbish, or other foreign matter. Remove all stones and rocks so that sparse amounts of stones no more than 1" in diameter remain within the top 4" of the topsoil. Do not move heavy objects except necessary lawn making equipment over the lawn areas after the soil is prepared unless it is again loosened and graded. Level all undulations or irregularities in the surface.

I. Apply fertilizer to all turf areas at a rate equal to 2.0 lbs. of actual phosphorous (P) per 1,000 sq. ft., or as directed by the Landscape Architect.

J. Apply fertilizers by mechanical rotary or drop type distributor, thoroughly and evenly incorporated in to the soil to a depth of 1"-2" by dicing or other approved method. Fertilize areas inaccessible to power equipment with hand tools and incorporate into soil.

K. Restore prepared areas to specified condition if eroded, settled, or otherwise disturbed after fine grading and prior to seeding.

3.02 INSTALLATION

A. Seeding:

1. Seed immediately after preparation of bed. Seed during periods generally accepted by the local nursery trade for the specific seed blend. Seeding times other than those locally recognized shall be acceptable to the Landscape Architect.

2. Seed indicated areas within contract limits and areas adjoining contract limits disturbed as a result of construction operations.
3. Perform seeding operations when the soil is dry and when winds do not exceed five miles per hour velocity.
4. Seed to be applied at approved minimum rates in cross directions with approved seed drilling or slice seeding equipment. Apply 50% of the seed in each direction. Seed applied by hydro-seeding methods is unacceptable.
5. Apply hydro-mulch with approved hydro-mulching equipment immediately after seeding. Slurry to be composed of clean water and mulch. Apply mulch slurry at a minimum rate of 1,500 pounds to 2,000 pounds per acre on slopes steeper than 4:1. Direct slurry to evenly cover designated seed areas. Repair ruts, depressions and all damage caused by hydro-mulching equipment. If straw is applied, the layer is not to be too thick which will inhibit seed germination. Immediately remove any excess straw or straw piles.
6. Immediately re-seed and re-apply hydro-mulch and/or straw to areas that show poor germination.

B. Provide straw bale checking in ditches or problem swales at intervals required to adequately slow water velocity and impede soil loss or other methods as required by governmental agencies.

C. Provide jute mesh erosion control matting on all slopes 3:1 and greater, and in all ditches, or problem swales. Pin matting at 2'-4' intervals around perimeter of matting at ditches and swales. On wide banks with 3:1 and greater slopes provide pins at a maximum of 2'-0" on center each way.

D. During germination period, protect and water seeded areas, maintain top 1/2" to 1" soil constantly moist. Continue watering for minimum of four weeks.

3.03 MAINTENANCE

A. Maintain newly seeded lawns until a uniform stand of grass is achieved and full maintenance including at least two (2) mowings, and a second application of fertilizer has been applied.

B. Maintain newly installed seeded lawn areas in an acceptable manner including watering, top dressing, spot weeding, mowing, trimming, removal of clippings, leaf removal, applications of herbicides, fungicides, insecticides, and re-seeding. Apply post-emergent herbicides (selective and non-selective) only as necessary to treat already germinated weeds and in accordance with manufacture's written recommendations.

1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Keep turf uniformly moist to depth of 4 inches.
2. Water turf with a fine spray nozzle to apply a minimum of 1 inch of water unless rainfall precipitation is adequate.
3. Repair, re-work, re-seed, and re-mulch all respective areas that have settled, washed out, were disturbed by wind, are eroded, did not germinate, or were damaged by maintenance operations.
4. Set mower blades at a minimum height of 3". Not more than 30% of the grass leaf/blade shall be removed at the initial or subsequent mowing. Mow all lawns before turf reaches a height of 4". Do not mow grass when wet.
5. If infestation of weeds or crabgrass develops, treat infestation by hand weeding or herbicidal control. Furnish and install weed chemical control as recommended by manufacturer. Herbicidal controls, including renovation before seeding operations, shall be acceptable to the Landscape Architect.

3.04 CLEANUP AND PROTECTION

A. Promptly remove soil and debris created by seeding work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.

3.05 ACCEPTANCE

A. Inspection to determine acceptance of installed lawns will be made by the Landscape Architect, upon Contractor's request. Provide notification at least five (5) working days before requested inspection date.

1. New lawn areas will be acceptable provided all requirements, including maintenance, have been complied with, and a healthy uniform, close stand of the specified grass is established free of weeds, undesirable grass species, disease, and insects.
2. No individual lawn areas shall have bare spots or unacceptable cover totaling more than 2% of the individual areas, in those areas requested for inspection.

B. Upon acceptance, the Owner will assume lawn maintenance.

END OF SECTION 32 92 19

OHIO Utilities Protection SERVICE
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SITE SPECIFICATIONS

SCALE: NONE

STATE OF OHIO
JAMES I. BURKART 334
REGISTERED LANDSCAPE ARCHITECT

DRAWN BY: J. BURKART
CHECKED BY: J. BURKART
DATE: 4.30.14

REVISIONS:

DRAWING PHASE:
- [ ] SCHEMATIC
- [ ] DESIGN DEVELOPMENT
- [x] CONSTRUCTION DOCUMENT
- [x] PERMIT SET
- [ ] BID SET

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PROJECT:
Dublin Arts Center Parking Improvements
7125 RIVERSIDE DRIVE
DUBLIN, OHIO

B U R K A R T
DISTINCTIVE LANDSCAPE ARCHITECTURE
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